

SUMMARY OF WATER-QUALITY DATA  
FOR SELECTED STREAMS IN COLORADO  
By Michael W. Gaydos

---

U.S. GEOLOGICAL SURVEY

WATER-RESOURCES INVESTIGATIONS  
OPEN-FILE REPORT 80-682

Prepared in cooperation with the  
Colorado Department of Health,  
Radiation and Hazardous Wastes Control Division

Lakewood, Colorado



UNITED STATES DEPARTMENT OF THE INTERIOR

CECIL D. ANDRUS, Secretary

GEOLOGICAL SURVEY

H. William Menard, Director

---

For additional information  
write to:

Colorado District Chief  
U.S. Geological Survey, MS 415  
Box 25046, Denver Federal Center  
Lakewood, CO 80225

For sale by:

Open-File Services Section  
Branch of Distribution  
U.S. Geological Survey, MS 306  
Box 25425, Denver Federal Center  
Denver, CO 80225  
(303) 234-5888

## TABLES

	Page
Table 1. Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available-----	3
2. Type and number of water-quality analyses available for selected surface-water sites-----	12

## METRIC CONVERSIONS

The inch-pound units used in this report may be converted to metric units by the following conversion factors:

<i>To convert</i>	<i>Multiply by</i>	<i>To obtain</i>
square mile	2.590	square kilometer
cubic foot per second	0.02832	cubic meter per second

## CONTENTS

	Page
Metric conversions-----	iv
Abstract-----	1
Introduction-----	1
Historical and current programs-----	2
Types of water-quality data available-----	11
Statistical summaries of water-quality data-----	17
Factors affecting interpretation of statistical summaries-----	18
Streamflow data-----	18
Specific conductance and pH-----	19
Nitrogen constituents-----	19
Dissolved solids-----	19
Correlation between specific conductance and major chemical constituents-----	19
Evaluation of water-quality programs-----	20
Selected references-----	21
Statistical summaries for 117 sites-----	31

## ILLUSTRATIONS

	Page
Plate 1. Map of Colorado showing location of surface-water sampling sites where water-quality data were collected during the 1978 water year-----	In pocket
2. Map of Colorado showing location of surface-water sampling sites for which at least five water-quality analyses of major chemical constituents were available as of September 30, 1978-----	In pocket

Figures 1-9. Graphs showing linear-regression analyses, Eagle River at Gypsum, Colo.:

1. Specific conductance and bicarbonate-----	22
2. Specific conductance and dissolved calcium-----	23
3. Specific conductance and dissolved magnesium-----	24
4. Specific conductance and dissolved sodium-----	25
5. Specific conductance and dissolved potassium-----	26
6. Specific conductance and dissolved chloride-----	27
7. Specific conductance and dissolved sulfate-----	28
8. Specific conductance and dissolved solids, residue at 180° Celsius-----	29
9. Specific conductance and dissolved solids, sum of constituents-----	30

## SUMMARY OF WATER-QUALITY DATA FOR SELECTED STREAMS IN COLORADO

By Michael W. Gaydos

---

### ABSTRACT

---

This report presents the first statewide summary of water-quality data for selected streams in Colorado. Included in the report is a tabulation of the 165 surface-water-sampling sites for which five or more analyses of major chemical constituents were available at the end of the 1978 water year and a tabulation of the types--major chemical constituents, trace constituents, biological constituents, pesticides, or radiochemicals--and number of water-quality analyses available for each of the 165 sites. Also included are statistical summaries, including regression summaries showing the relation between specific conductance and major chemical constituents, for 117 sites for which 20 or more analyses of major chemical constituents are available. Examples of linear-regression plots of specific conductance and selected major chemical constituents based on data from the Eagle River at Gypsum, Colo., are presented. Decisions to modify the frequency of collection or the types of constituents determined are facilitated by the statistical summaries.

### INTRODUCTION

Water-quality data have been collected for many years at surface-water sites throughout Colorado. Most of these data have been published either in interpretive or in hydrologic-data reports. However, except for data included in specific project-area reports or in special reports, such as one concerning computation of salt loads in water from the Colorado River in the Grand Valley (Brennan and Grozier, 1976), only limited efforts have been made to summarize available water-quality data in a format that would be usable by public-health officials, land-use planners, and water managers.

To provide public-health officials, land-use planners, and water managers with usable summaries of surface-water-quality data, the U.S. Geological Survey, in cooperation with the Colorado Department of Health, Radiation and Hazardous Wastes Control Division, began a 1-year study in 1978 to summarize the water-quality data contained in the files of the Geological Survey. The objectives of the study were:

1. To list all surface-water sites in the State for which five or more water-quality analyses of major chemical constituents are available, and to tabulate the types of water-quality data such as major chemical constituents, trace constituents, biological constituents, pesticides, and radiochemicals.

2. To provide data in a form for evaluating possible changes in sampling-site locations, frequency of sample collection, and constituents analyzed.

3. To statistically summarize water-quality data from sites for which at least 20 analyses of major chemical constituents were available at the end of the 1978 water year (October 1977 through September 1978).

Only water-quality data collected and analyzed by the U.S. Geological Survey and stored in the Survey's Water Data Storage and Retrieval System (WATSTORE) were used in the study. The statistical summaries and linear-regressions and plots included in the report were prepared using Statistical Analysis System (SAS) computer programs (Barr and others, 1976).

No attempt has been made in this report to discuss the significance of the individual chemical constituents in water, because many reports and texts include these in adequate detail. The reader is referred to the drinking-water regulations published by the Colorado Department of Health (1977) and the U.S. Environmental Protection Agency (1976, 1977) for a comprehensive discussion of all recommended and mandatory standards.

#### HISTORICAL AND CURRENT PROGRAMS

For many years the U.S. Geological Survey collected water-quality data from surface-water sources in Colorado to determine major chemical constituents, sediment concentrations, measurements of pH, specific conductance, and water temperature. However, few programs included routine determination of trace constituents such as biological constituents, pesticides, or radiochemicals until the early 1970's.

At least two factors contributed significantly to the expansion of the U.S. Geological Survey's surface-water-quality programs during the 1970's: Increased knowledge and awareness of the potential effects of water-quality constituents other than major constituents; and development and improvement of analytical techniques and equipment to permit accurate and routine determination of these constituents. As a result the U.S. Geological Survey's current (1978) water-quality data-collection activities in the State have been expanded to include various combinations of constituents at about 165 surface-water sites (pl. 1). The frequency of data collection at these sites during the 1978 water year ranged from continuous monitoring to monthly or quarterly sampling.

Water-quality data have been collected at about 340 surface-water sites in the State. At least five analyses of major chemical constituents are available for 48 sites and at least 20 analyses of major chemical constituents are available for 117 of 165 sites through the 1978 water year (table 1 and pl. 2).

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available

[D=Daily samples; M=Monthly samples; I=Intermittent samples; period of record in water years; italicized station numbers indicate 5 to 19 analyses available; nonitalicized station numbers indicate 20 or more analyses available]

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
06611100	Grizzly Creek near Spicer, Colo.	M 1977-78
06611200	Buffalo Creek near Hebron, Colo.	M 1977-78
06611300	Grizzly Creek near Hebron, Colo.	M 1977-78
06611800	Little Grizzly Creek above Coalmont, Colo.	M 1977-78
06611900	Little Grizzly Creek above Hebron, Colo.	M 1977-78
06620000	North Platte River near Northgate, Colo.	I 1965 M 1966-78
06714200	Burlington Ditch below headgate, at Denver, Colo.	M 1963-67
06719500	Clear Creek near Golden, Colo.	I 1958, 1972-74
06720500	South Platte River at Henderson, Colo.	D July 1955- 57 M 1963-73
06722000	North St. Vrain Creek at Longmont Dam, near Lyons, Colo.	M 1972-78
06723400	South St. Vrain Creek above Lyons, Colo.	M 1972-78
06724000	St. Vrain Creek at Lyons, Colo.	M 1977-78
06724600	Left Hand Creek at Altona, Colo.	M 1972-78
06725000	Left Hand Creek at mouth, at Longmont, Colo.	M 1977-78
06725450	St. Vrain Creek below Longmont, Colo.	M 1977-78
06731000	St Vrain Creek at mouth, near Platteville, Colo.	I 1952-56 I 1962-65 M 1966-68 M 1971-78
06733000	Big Thompson River at Estes Park, Colo.	I 1974-75
06734900	Olympus Tunnel at Lake Estes, Colo.	M 1971-78
06736700	Big Thompson River above Dille Tunnel, near Drake, Colo.	M 1971-78
06737500	Horsetooth Reservoir near Ft. Collins, Colo.	M 1970-78
06742500	Carter Lake near Berthoud, Colo.	M February 1970-78
06744000	Big Thompson River at mouth, near La Salle, Colo.	I 1954-56 M 1968 M 1971-78
06747500	Cache La Poudre River near Rustic, Colo.	M 1972-75
06752000	Cache La Poudre River at mouth of canyon, near Ft. Collins, Colo.	M 1972-78

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
06752260	Cache La Poudre River at Ft. Collins, Colo.	M April 1975-78
06752500	Cache La Poudre River near Greeley, Colo.	I 1952-56 M December 1963-66 M 1968 M 1971-78
06754000	South Platte River near Kersey, Colo.	I 1947-50 D December 1950-53 M June 1962-64 M 1966-70 M 1977-78
06756995	South Platte River at Masters, Colo.	M 1977-78
06758500	South Platte River near Weldona, Colo.	M 1968 M 1972-78
06759100	Bijou Creek near Ft. Morgan, Colo.	M 1977-78
06760000	South Platte River at Balzac, Colo.	I 1950-57 M 1963-70
06764000	South Platte River at Julesburg, Colo.	D 1946-78
06764200	South Platte River near Julesburg, Colo.	M July 1969- July 1973
06822000	North Fork Republican River near Wray, Colo.	I 1947 I 1961-65
06826500	South Fork Republican River near Hale, Colo.	I 1977-78
07079200	Leadville Drain at Leadville, Colo.	I 1965-67 M 1968-69 I 1970-78
07081200	Arkansas River near Leadville, Colo.	M 1968-69
07083000	Halfmoon Creek near Malta, Colo.	I 1965 M 1967-78
07083700	Arkansas River near Malta, Colo.	I 1964 I 1966-75 M 1965 M 1978
07084500	Lake Creek above Twin Lakes Reservoir, Colo.	I 1973
07086000	Arkansas River at Granite, Colo.	M 1968-69

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
07096000	Arkansas River at Canon City, Colo.	M 1964-65 M January 1966-68 M 1970-78
07097000	Arkansas River at Portland, Colo.	M 1977-78
07099200	Arkansas River near Portland, Colo.	M 1965- December 1976
07099400	Arkansas River above Pueblo, Colo.	M 1966-70
07099500	Arkansas River near Pueblo, Colo.	M 1964-65 I 1974-78
07106500	Fountain Creek at Pueblo, Colo.	M 1964-65 M 1974-78
07117000	Arkansas River near Nepesta, Colo.	M 1964-66 I 1974-78
07119500	Apishapa River near Fowler, Colo.	M 1964-65 M 1967-68 I 1969
07122000	Arkansas River near La Junta, Colo.	I 1962 M 1964-68 I 1969
07124000	Arkansas River at Las Animas, Colo.	D 1946 I 1962, 1978 M 1964-66
07128500	Purgatoire River near Las Animas, Colo.	I 1962 M 1964-68 I 1969
07130500	Arkansas River below John Martin Reservoir, Colo.	D January 1951-78
07133000	Arkansas River at Lamar, Colo.	M 1964-65 M 1970- June 1971
07137500	Arkansas River near Coolidge, Kans.	M 1964-68 I 1969 M 1970-73 D April 1975-78
08220000	Rio Grande near Del Norte, Colo.	M 1968
08223500	Rock Creek near Monte Vista, Colo.	M 1968
08224500	Kerber Creek at Ashley Ranch, near Villa Grove, Colo.	M 1968

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
08227000	Saguache Creek near Saguache, Colo.-----	M 1968
08227500	North Crestone Creek near Crestone, Colo.-----	I 1968
08229500	Cottonwood Creek near Crestone, Colo.-----	I 1968
08230500	Carnero Creek near La Garita, Colo.-----	M 1968
08234200	Mosca Creek near Mosca, Colo.-----	I 1968
08236000	Alamosa Creek above Terrace Reservoir, Colo.-----	M 1968
08241500	Sangre de Cristo near Ft. Garland, Colo.-----	M 1968
08246500	Conejos River near Mogote, Colo.-----	M 1968
08249200	Rio Grande above Culebra Creek, near Lobatos, Colo.-----	D 1947-65 M 1966-69
08249400	Culebra Creek near Chama, Colo.-----	M 1968
08251500	Rio Grande near Lobatos, Colo.-----	M 1970- March 1975 D March 1975-78
09013000	Alva B. Adams Tunnel at East Portal, near Estes Park, Colo.	M 1971-78
09019000	Colorado River below Lake Granby, Colo.-----	M July 1969- August 1970
09034500	Colorado River at Hot Sulphur Springs, Colo.-----	D 1947-78
09049200	West Tenmile Creek at Copper Mountain, Colo.-----	I 1973 M 1974-78
09066050	Black Gore Creek near Vail, Colo.-----	I 1973 M 1974-78
09066250	Gore Creek at Vail, Colo.-----	I 1973 M 1974-78
09069000	Eagle River at Gypsum, Colo.-----	D April 1947-78
09070500	Colorado River near Dotsero, Colo.-----	I 1970 M 1962-78
09071100	Colorado River near Glenwood Springs, Colo.-----	D 1942-78
09072500	Colorado River at Glenwood Springs, Colo.-----	D 1957 D 1959-60 M 1961-66
09083800	Crystal River below Carbondale, Colo.-----	M 1977-78

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
09085000	Roaring Fork River at Glenwood Springs, Colo.	I 1948-62 D May 1962- September 1967 I 1969-71 I 1976
09092570	Colorado River at Rulison, Colo.	M 1977
09092830	Northwater Creek near Anvil Points, Colo.	M 1977-78
09092960	East Fork Parachute Creek near Anvil Points, Colo.	M 1977-78
09092970	East Fork Parachute Creek near Rulison, Colo.	M 1977-78
09093000	Parachute Creek near Grand Valley, Colo.	M June 1975-78
09093500	Parachute Creek at Grand Valley, Colo.	D 1975-78
09093700	Colorado River near De Beque, Colo.	I 1973 D 1974-78
09095000	Roan Creek near De Beque, Colo.	D 1975-78
09095500	Colorado River near Cameo, Colo.	D 1934-78
09095530	Government Highline Canal near Mack, Colo.	D August 1973-78
09105000	Plateau Creek near Cameo, Colo.	I 1969-78 D 1972- May 1975
09106200	Lewis Wash near Grand Junction, Colo.	D April 1973-78
09137300	Gunnison River at Austin, Colo.	D May 1962- June 1963
09152500	Gunnison River near Grand Junction, Colo.	D 1932-78
09152600	Orchard Mesa Drain at Grand Junction, Colo.	D April 1973-78
09152650	Leach Creek at Durham, Colo.	D April 1973-78
09152900	Adobe Creek near Fruita, Colo.	D April 1973-78
09153270	Big Salt Wash at Fruita, Colo.	D March 1973-78
09153300	Reed Wash near Loma, Colo.	D April 1973-78
09153400	West Salt Creek near Mack, Colo.	D September 1973-78
09163050	Badger Wash near Mack, Colo.	D June 1973- 78

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
09163310	East Salt Creek near Mack, Colo.-----	D July 1973-78
09163340	Mack Wash near Mack, Colo.-----	D August 1973-78
09163490	Salt Creek near Mack, Colo.-----	D April 1973-78
09163500	Colorado River near Colorado-Utah State Line-----	M 1970 I 1969-77
09163530	Colorado River below Colorado-Utah State Line-----	D May 1962- 69 D 1973-78
09177000	San Miguel River at Uravan, Colo.-----	I 1947-50 M August 1969-78
09177100	San Miguel River below Uravan, Colo.-----	I 1948-49 M August 1969-78
09179500	Dolores River at Gateway, Colo.-----	D 1948-52 M January 1970-73
09243700	Middle Creek near Oak Creek, Colo.-----	D 1976-78
09243800	Foidal Creek near Oak Creek, Colo.-----	D 1976-78
09243900	Foidal Creek at Mouth, near Oak Creek, Colo.-----	D 1976-78
09244410	Yampa River below Diversion, near Hayden, Colo.-----	M June 1975-78
09246550	Yampa River below Elkhead Creek, near Craig, Colo.-----	M June 1975-78
09247600	Yampa River below Craig, Colo.-----	M June 1975-78
09249750	Williams Fork at mouth, near Hamilton, Colo.-----	M June 1975-78
09250400	Good Spring Creek at Axial, Colo.-----	M 1976-78 D 1977-78
09250510	Taylor Creek at mouth, near Axial, Colo.-----	I 1975 D July 1976-78
09250600	Wilson Creek near Axial, Colo.-----	D 1976-78
09250610	Jubb Creek near Axial, Colo.-----	D 1976-78

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
09251000	Yampa River near Maybell, Colo.	I 1947-50 D November 1950- August 1973 D August 1975-78
09259700	Little Snake River near Baggs, Wyo.	M July 1965-71 I 1972-78
09259950	Little Snake River above Lily, Colo.	D December 1950- December 1969
09260000	Little Snake River near Lily, Colo.	M January 1970-78 D January 1975-78
09303000	North Fork White River at Buford, Colo.	M 1977-78
09304000	South Fork White River at Buford, Colo.	M 1977-78
09304200	White River above Coal Creek, near Meeker, Colo.	D March 1973-75
09304500	White River near Meeker, Colo.	I 1947 D March 1973- November 1974
09304800	White River below Meeker, Colo.	M April 1974-78
09306007	Piceance Creek below Rio Blanco, Colo.	D April 1974-78
09306022	Stewart Gulch above West Fork, near Rio Blanco, Colo.	D 1975-78
09306025	West Fork Stewart Gulch near Rio Blanco, Colo.	D April 1974-78
09306033	Sorghum Gulch near Rio Blanco, Colo.	D April 1974-78
09306039	Cottonwood Gulch near Rio Blanco, Colo.	D April 1974-78
09306058	Willow Creek near Rio Blanco, Colo.	D April 1974-78

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
09306061	Piceance Creek above Hunter Creek, near Rio Blanco, Colo.	D April 1974-78
09306175	Black Sulphur Creek near Rio Blanco, Colo.-----	D 1975-78
09306200	Piceance Creek below Ryan Gulch, near Rio Blanco, Colo.--	M 1971-78
09306210	Piceance Creek near White River, Colo.-----	I 1947-58 M 1971-76 I 1966-69
09306222	Piceance Creek at White River, Colo.-----	D 1971-78
09306235	Corral Gulch below Water Gulch, near Rangely, Colo.-----	D March 1974-78
09306240	Box Elder Gulch near Rangely, Colo.-----	D April 1974-78
09306242	Corral Gulch near Rangely, Colo.-----	D March 1974-78
09306244	Corral Gulch at 84 Ranch, Colo.-----	D April 1975-78
09306255	Yellow Creek near White River, Colo.-----	I 1966-69 D May 1974-78
09306300	White River above Rangely, Colo.-----	M August 1975-78 I 1949-60
09306380	Douglas Creek at Rangely, Colo.-----	M 1977-78
09341200	Wolf Creek near Pagosa Springs, Colo.-----	M 1971-75
09343000	Rio Blanco near Pagosa Springs, Colo.-----	I 1973-74
09343300	Rio Blanco below Diversion Dam, near Pagosa Springs, Colo.	I 1973-74
09343400	Rio Blanco at U.S. Highway 84, near Pagosa Springs, Colo.	I 1973-74
09344300	Navajo River above Chromo, Colo.-----	I 1973-74
09346000	Navajo River at Edith, Colo.-----	I 1969-74
09346400	San Juan River near Carracas, Colo.-----	I 1969-73
09347200	Middle Fork Piedra River near Pagosa Springs, Colo.-----	M 1971-75
09352900	Vallecito River near Bayfield, Colo.-----	M 1963-68 M August 1970-78
09354500	Los Pinos River at La Boca, Colo.-----	I 1969-74
09357500	Animas River at Howardsville, Colo.-----	M 1971-75
09358900	Mineral Creek above Silverton, Colo.-----	M 1971-75
09363500	Animas River near Cedar Hill, N. Mex.-----	M 1970-73

Table 1.--Period of record of selected surface-water sites for which at least five water-quality analyses of major chemical constituents are available--Continued

U.S. Geological Survey station number	Station name	Frequency of sam- pling and period of record
09366500	La Plata River at Colorado-New Mexico State Line-----	I 1969-73 M 1978
09370800	Mancos River near Cortez, Colo.-----	D July 1975-78
09371000	Mancos River near Towaoc, Colo.-----	I 1969-76
09372000	McElmo Creek near Colorado-Utah State line-----	I 1969-72 M 1978

#### TYPES OF WATER-QUALITY DATA AVAILABLE

The types of data, number of water-quality analyses of each type and the period during which the analyses were made are listed in table 2 for all sites having five or more analyses of major chemical constituents. Therefore, the tabulation shown in table 2 is useful in determining the need for relocating sampling sites, analyzing for additional constituents, or, in conjunction with the frequency data in table 1, for changing the frequency of sampling.

Descriptions of the types of water-quality data listed in table 2 are as follow:

1. Major constituents include dissolved calcium, magnesium, sodium, potassium, bicarbonate, carbonate, sulfate, chloride, fluoride, silica, total hardness as calcium carbonate ( $\text{CaCO}_3$ ), and dissolved solids. Dissolved nitrate or dissolved nitrite plus nitrate also were determined for most samples. In addition to the constituents determined in the laboratory, several constituents commonly were measured at the time of sample collection. These include measurement of streamflow; the determination of pH, specific conductance, and water temperature; and the dissolved-oxygen concentration in water.

2. Trace constituents include arsenic, boron, cadmium, chromium, copper, iron, lead, manganese, mercury, selenium, and zinc. Many more determinations of iron and manganese are available because routine determinations for these constituents have been made for many years.

3. The types of pesticides routinely determined include the common organochlorine and organophosphorus insecticides and the chlorinated phenoxy-acid herbicides.

Table 2.--Type and number of water-quality analyses available for selected surface-water sites

[M=major chemical constituents, T=trace constituents, B=biological constituents,  
P=pesticides, R=radiocchemicals]

U.S. Geological Survey station number	1949-60				1961-65				1966-69				1970-73				1974-78								
	M	T	B	P	M	T	B	P	M	T	B	P	M	T	B	P	M	T	B	P					
06611100	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	3	---	---					
06611200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	3	---	---					
06611300	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	18	3	---	---					
06611800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	3	---	---					
06611900	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	3	---	---					
06620000	---	---	---	7	---	---	55	---	46	---	---	---	57	---	59	5	---	---	---	---					
06714200	---	---	40	---	22	---	---	---	---	1	---	---	28	1	1	1	58	1	1	1					
06719500	2	---	---	---	---	---	---	---	6	---	---	---	55	---	---	---	23	---	---	---					
06720500	78	---	40	---	48	---	49	4	38	12	---	1	---	5	---	5	---	5	---	---					
06722000	---	---	---	---	---	---	26	---	57	---	57	---	57	---	57	---	57	---	57	---					
06723400	---	---	---	---	---	---	---	---	26	---	---	---	58	1	1	1	28	1	1	1					
06724000	---	---	---	---	---	---	---	---	28	---	---	---	55	---	---	---	23	---	---	---					
06724600	---	---	---	---	---	---	---	---	---	---	---	---	24	---	---	---	24	---	---	---					
06725000	---	---	---	11	---	---	---	---	---	---	---	---	---	---	---	---	23	---	3	---					
06725450	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	24	---	---	---					
06731000	6	---	4	---	30	---	43	1	---	---	57	---	57	---	57	---	57	---	57	---					
06733000	---	---	---	---	---	---	---	---	33	---	33	---	36	---	36	---	36	52	---	---					
06734900	---	---	---	---	---	---	---	---	123	---	123	---	15	---	15	---	15	---	15	---					
06736700	---	---	---	---	---	---	---	---	108	---	108	---	108	---	108	---	108	---	108	---					
06737500	---	---	---	---	---	---	---	---	108	75	108	75	120	---	120	---	120	118	---	---					
06742500	---	---	---	---	---	---	---	---	10	---	43	1	1	1	1	1	56	---	56	---					
06744000	7	---	---	---	---	---	---	---	26	1	26	1	21	---	21	---	21	---	21	---					
06747500	---	---	---	---	---	---	---	---	27	1	27	1	56	1	56	1	56	1	56	1					
06752000	---	---	---	24	---	45	---	43	1	43	1	41	---	41	---	41	---	41	---	41	---				
06752260	7	---	41	---	18	---	9	---	9	---	9	---	57	1	57	1	57	1	57	1	57	1			
06752500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---				
06754000	92	---	30	---	45	---	14	1	8	---	32	---	32	---	32	---	32	---	32	---	32	---			
06756995	---	---	---	---	---	---	---	---	10	---	24	---	24	---	24	---	24	---	24	---	24	---			
06758500	---	---	---	41	---	45	---	43	1	43	1	41	---	41	---	41	---	41	---	41	---	41	---		
06759100	21	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	34	---	34	---	34	---	34	---	
06760000	---	---	91	---	20	---	12	3	6	---	56	20	57	18	15	56	20	57	18	15	56	20	57	15	
06764000	223	---	5	---	7	---	33	---	4	21	---	15	---	15	2	15	---	15	---	15	---	15	---	15	---
06764200	---	---	5	---	7	---	33	---	4	21	---	15	---	15	2	15	---	15	---	15	---	15	---	15	---
06822000	14	---	---	---	28	24	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
06826500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
07079200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---

Table 2.--Type and number of water-quality analyses available for selected surface-water sites--Continued

U.S. Geological Survey station number	1949-60			1961-65			1966-69			1970-73			1974-78							
	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R
07081200	---	---	---	---	---	21	18	---	---	49	7	30	4	5	58	---	49	1	5	
07083000	---	---	2	2	---	36	5	---	4	6	7	---	5	13	---	13	---	13	---	
07083700	---	---	13	13	---	4	---	---	---	4	4	---	---	---	---	---	---	---	---	
07084500	---	---	---	---	---	21	19	---	1	1	---	---	---	---	---	---	---	---	---	
07086000	---	---	23	23	---	34	---	---	---	34	---	---	---	36	---	---	---	---	---	
07096000	---	---	14	14	---	49	---	---	---	44	---	---	---	20	---	---	---	---	---	
07097000	---	---	36	36	---	50	---	---	10	---	10	---	---	62	2	---	---	---	---	
07099200	---	---	24	24	---	17	---	---	17	---	17	---	---	5	3	---	2	---	---	
07099400	---	---	25	25	---	12	---	---	12	---	12	---	---	4	2	2	2	2	---	
07099500	---	---	23	23	---	28	---	---	28	---	28	---	---	62	2	---	---	---	---	
07122000	---	---	23	23	---	39	---	---	4	---	4	---	---	5	3	2	2	2	2	
07124000	123	29	29	12	2	12	2	---	12	2	12	2	---	1	1	1	1	1	1	
07128500	1275	30	30	220	220	27	1	14	14	1	1	20	20	53	53	53	53	53	53	
07130500	07133000	24	24	37	37	2	2	44	2	44	2	40	1	40	1	40	1	40	1	
07137500	08220000	37	37	37	37	13	13	13	13	53	53	53	53	41	41	41	41	41	41	
082223500	08224500	08222700	082227500	082229500	08230500	08234200	08236000	08245000	08246500	08249200	08249400	0825500	09013000	09019000	1204	305	33	33	33	33
08230500	08234200	08236000	08245000	08246500	08249200	08249400	0825500	09013000	09019000	1204	305	33	33	33	33	33	33	33	33	
08234200	08236000	08245000	08246500	08249200	08249400	0825500	09013000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
08236000	08245000	08246500	08249200	08249400	0825500	09013000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
08245000	08246500	08249200	08249400	0825500	09013000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
08246500	08249200	08249400	0825500	09013000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
08249200	08249400	0825500	09013000	09019000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
08249400	0825500	09013000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
0825500	09013000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
09013000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	
09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	09019000	1204	305	33	33	33	33	33	33	33	33	

Table 2.--Type and number of water-quality analyses available for selected surface-water sites--Continued

U.S. Geological Survey station number	1949-60				1961-65				1966-69				1970-73				1974-78			
	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R	M	T	B	P	
	N					N					N					N				
09034500	1376	---	---	---	---	235	---	---	---	---	46	---	---	---	46	---	---	---	---	
09049200	---	---	---	---	---	---	---	---	---	---	2	---	---	2	---	65	---	---	---	
09066050	---	---	---	---	---	---	---	---	---	---	2	---	---	2	---	61	---	---	---	
09066250	---	---	---	---	---	---	---	---	---	---	2	---	---	2	---	69	---	---	---	
09069000	1278	---	---	---	---	129	---	---	---	113	4	---	---	47	22	---	53	---	1	
09070500	29	---	---	---	---	21	---	---	---	14	---	---	16	---	47	21	---	31	---	
09071100	1787	---	---	---	---	98	---	---	---	95	3	---	47	21	---	52	---	---	---	
09072500	111	---	---	---	---	23	---	---	---	2	2	---	---	---	---	---	---	---	---	
09083800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	15	---	---	---	
09085000	30	---	---	---	---	75	---	---	---	57	---	---	18	---	1	---	---	---	---	
09092570	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	4	---	---	---	
09092830	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	16	---	---	---	
09092960	---	---	---	---	---	---	---	---	---	---	---	---	---	---	13	13	---	---	---	
09092970	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	8	---	---	---	
09093000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37	27	18	2	5	
09093500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	45	43	---	---	---	
09093700	---	---	---	---	---	---	---	---	---	---	1	---	---	1	5	49	---	---	---	
09095000	1344	---	---	---	---	98	---	---	---	100	4	---	46	21	---	42	41	---	---	
09095530	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51	---	---	---	---	
09105000	---	---	---	---	---	---	---	---	5	---	---	15	---	5	42	---	---	---	---	
09106200	---	---	---	---	---	---	---	---	---	---	3	---	---	3	---	27	1	---	---	
09137300	---	---	---	---	48	---	---	---	143	3	---	47	23	---	51	14	28	---	---	
09152500	1595	---	---	---	127	---	---	---	---	---	3	---	3	---	26	1	---	---	---	
09152600	---	---	---	---	---	---	---	---	---	---	---	---	2	---	26	---	---	---	---	
09152650	---	---	---	---	---	---	---	---	---	---	---	---	2	---	26	---	---	---	---	
09152900	---	---	---	---	---	---	---	---	---	---	2	---	2	---	30	---	---	---	---	
09153270	---	---	---	---	---	---	---	---	---	---	2	---	2	---	27	---	---	---	---	
09153300	---	---	---	---	---	---	---	---	---	---	2	---	2	---	29	---	---	---	---	
09153400	---	---	---	---	---	---	---	---	---	---	---	---	---	8	---	8	---	---	---	
09163050	---	---	---	---	---	---	---	---	---	---	---	---	1	---	1	6	---	---	---	
09163310	---	---	---	---	---	---	---	---	---	---	2	---	2	---	31	---	---	---	---	
09163340	---	---	---	---	---	---	---	---	---	---	2	---	2	---	30	---	---	---	---	
09163490	---	---	---	---	---	---	---	---	---	---	2	---	2	---	31	---	---	---	---	
09163500	---	---	---	---	---	---	---	---	---	2	---	2	---	22	---	5	---	---	---	

Table 2.--Type and number of water-quality analyses available for selected surface-water sites--Continued

U.S. Geological Survey station number	1949-60				1961-65				1966-69				1970-73				1974-78					
	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R		
09163530	---	---	---	---	---	104	---	---	---	---	86	3	---	---	4	2	---	---	44	14	29	---
09177000	2	---	---	---	---	---	1	---	---	---	5	1	---	---	22	2	53	---	9	2	53	9
09177100	2	---	---	---	---	---	3	---	---	---	22	1	---	---	19	2	53	---	9	1	53	9
09179500	145	---	---	---	---	---	---	---	---	---	44	---	---	---	1	---	---	---	26	10	---	---
09243700	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	26	10	---	---
09243800	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	11	5	---	---	---	---
09243900	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10	4	---	---	---	---	---
09244410	---	---	---	---	---	---	---	---	---	---	---	---	---	---	47	12	31	1	1	---	---	---
09246550	---	---	---	---	---	---	---	---	---	---	---	---	---	---	39	12	19	1	1	---	---	---
09247600	---	---	---	---	---	---	---	---	---	---	---	---	---	---	38	10	24	---	---	---	---	---
09249750	---	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	39	10	24	---	---	---
09250400	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	31	11	---	---	---	---	---
09250510	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	13	4	---	---	---	---	---
09250600	---	---	---	---	---	---	---	---	---	---	---	1	---	---	41	15	---	---	---	---	---	---
09250610	---	---	---	---	---	---	---	---	---	---	---	1	---	---	18	6	---	---	---	---	---	---
1329	---	---	---	---	---	128	---	---	---	107	4	---	48	23	---	---	53	24	66	2	1	---
09251000	---	---	---	---	---	2	---	---	51	---	---	25	---	---	---	19	2	2	---	1	---	---
09259700	---	---	---	---	---	162	---	---	116	1	---	1	1	---	---	42	27	31	4	10	---	---
09259950	384	---	---	---	---	---	---	---	6	2	---	47	22	---	---	53	15	55	2	1	---	---
09260000	231	---	---	---	---	---	---	---	---	---	---	---	---	---	16	5	---	---	---	---	---	---
09303000	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
09304000	---	---	---	---	---	---	---	---	---	---	---	1	---	---	---	16	5	---	---	---	---	---
09304200	---	---	---	---	---	---	---	---	---	---	2	---	---	---	8	---	---	---	---	---	---	---
09304500	12	---	---	---	---	---	---	---	---	---	---	1	---	---	4	---	---	---	---	---	---	---
09304800	---	---	---	---	---	---	---	---	---	---	---	1	1	---	78	70	10	6	13	---	---	---
09306007	---	---	---	---	---	---	---	---	---	---	---	1	1	---	40	39	2	1	3	---	---	---
09306022	---	---	---	---	---	---	---	---	---	---	---	1	1	---	3	3	2	---	3	---	---	---
09306025	---	---	---	---	---	---	---	---	---	---	---	1	1	4	4	4	1	2	1	1	---	---
09306033	---	---	---	---	---	---	---	---	---	---	---	1	1	---	34	34	1	1	1	1	1	1
09306039	12	---	---	---	---	---	---	---	---	---	---	1	1	---	34	34	1	1	1	1	1	1
09306058	---	---	---	---	---	---	---	---	---	---	---	2	---	2	36	2	---	24	1	1	1	1
09306061	---	---	---	---	---	---	---	---	---	---	---	1	1	---	79	76	18	6	13	---	---	---
09306175	---	---	---	---	---	---	---	---	---	---	---	1	1	---	43	41	1	1	1	1	1	1
09306200	---	---	---	---	---	---	---	---	---	---	---	1	1	---	54	23	1	1	1	1	1	1
09306210	12	---	---	---	---	---	---	---	---	---	---	1	1	---	24	1	1	1	1	1	1	1
09306222	---	---	---	---	---	---	---	---	---	---	2	---	2	36	2	---	53	22	---	---	---	---

Table 2.--Type and number of water-quality analyses available for selected surface-water sites--Continued

U.S. Geological Survey station number	1949-60				1961-65				1966-69				1970-73				1974-78				
	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R	M	T	B	P	R	
09306235	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	51	41	5	5	6	
09306240	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	16	11	3	3	3	
09306242	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	56	8	10	10	
09306244	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23	17	7	3	5	
09306255	---	---	---	---	---	---	---	---	---	---	2	---	---	3	2	---	51	41	9	9	9
09306300	12	---	---	---	---	---	---	---	---	---	---	---	---	---	---	35	23	14	4	5	
09306380	3	---	---	---	---	---	---	---	---	---	---	---	---	---	---	8	2	---	---	---	
09341200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	19	---	---	---	---	
09343000	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	7	---	---	---	---	
09343300	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---	6	---	---	---	---	
09343400	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---	6	---	---	---	---	
09344300	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	7	---	---	---	---	
09346000	---	---	---	---	---	---	---	---	---	---	19	---	---	---	---	10	6	---	---	---	
09346400	---	---	---	---	---	---	---	---	---	---	3	---	---	---	---	21	---	---	---	---	
09347200	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	28	---	---	19	---	
09352900	---	---	---	---	---	16	---	---	---	---	32	14	---	---	49	15	28	2	3	65	
09354500	---	---	---	---	---	---	3	---	---	---	21	5	---	---	1	---	---	---	---	1	
09357500	---	---	---	---	---	---	---	---	---	---	28	---	---	---	---	19	---	---	---	---	
09358900	---	---	---	---	---	---	---	---	---	---	28	---	---	---	---	19	---	---	---	---	
09363500	---	---	---	---	---	---	3	---	---	---	29	9	43	---	17	---	---	---	---	---	
09366500	---	---	---	---	---	---	---	---	---	---	11	---	---	---	12	---	---	10	4	---	
09370800	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	11	1	---	---	23	
09371000	---	---	---	---	---	---	---	---	---	---	1	---	---	---	8	---	---	12	5	11	
09372000	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	12	5	11	---	2	

<sup>1</sup>All or part of this count is from 1932-48 inclusive.

4. Biological constituents include periphyton biomass, phytoplankton cell counts, and taxonomic identifications. Total coliform, fecal coliform, and fecal streptococcal bacteria also have been determined at selected sites.

5. Radiochemicals routinely determined include gross alpha and gross beta radiation. Radium-226, strontium-90, and uranium also have been determined at selected sites.

The various periods shown in table 2 were selected to illustrate major changes in emphasis in water-quality programs. The 1949-60 period represents the beginning of the data-collection program at most sites and was the time of the "traditional" major-constituent analysis. A few trace constituents, such as iron and manganese, also were determined routinely during this period. Large program expansion and several significant methodology changes occurred during 1961-65 and 1966-69, including the beginning of accurate and routine analyses of trace constituents during 1966-69. The 1970-73 period marked the beginning of selected routine biological, organic, and radiochemical determinations as awareness of environmental quality increased. During 1974-78, the number of sites and the types of constituents determined increased greatly as a result of the national emphasis on energy development.

#### STATISTICAL SUMMARIES OF WATER-QUALITY DATA

Data needed to adequately define the natural water-quality characteristics of a stream must include data obtained throughout the year at various flow regimes. Generally, about 2 years of monthly analyses of major chemical constituents are sufficient to define the major water-quality characteristics of a stream at a specific site. Consequently, statistical summaries of water-quality data were made only for those sites where 20 or more monthly analyses of major chemical constituents were available.

Statistical summaries of major chemical constituents, streamflow, pH, specific conductance, water temperature, dissolved oxygen, and selected trace or minor elements were prepared for 117 sites; the summaries are presented in the Statistical Summaries section at the end of this report. The summaries include: (1) The number of measurements or determinations of each constituent; (2) the maximum, minimum, and mean values; and (3) the standard deviation from the mean. In addition, linear-regression summaries relating major chemical constituents to specific conductance are included for those constituents which are significantly correlated with specific conductance at the 95 percent confidence level. The regression coefficient (*R*), the intercept or constant (*B*), the correlation coefficient, and the standard error of estimate are shown. The linear-regression equation relating specific conductance to constituent concentration is usually expressed as:

$$\text{Constituent concentration (mg/L)} = \text{specific conductance (Micromhos/cm)} \times R + B.$$

Abbreviated duration tables of specific conductance also were prepared for those sites for which daily-mean specific conductance values were available.

The number of streamflow measurements and the number of values of specific conductance, pH, and water temperature presented in the statistical summaries may be greater than the number of samples collected for some sites because: (1) In recent years, specific conductance and water temperature were measured each time a stream-discharge measurement was made, even though samples for water-quality analysis were not collected, and (2) when streamside and laboratory measurements of specific conductance and pH were made, both were stored in WATSTORE. Also, the number of determinations for an individual constituent may be less than the total number of samples for the site because some individual constituents may not have been determined on a particular sample. The sample size used for the regression analysis may be less than the number of analyses for that constituent in the WATSTORE file. The reason for this is that only those analyses having the constituent and a matching specific conductance values are used in the regression analysis.

Several types of available data were not included in the summaries for the following reasons: Continuous and once-daily water-temperature data will be included in another report; pesticide, radiochemical, and sediment data are too few at the present (1978) to be statistically analyzed; and the types of biological data available are not amenable to this type of statistical analysis. The availability of these data can be determined by use of table 2.

#### Factors Affecting Interpretation of Statistical Summaries

Changes in data-collection techniques, analytical methods, or variations in reporting constituent values need to be considered when interpreting the statistical summaries. The following sections describe the factors affecting interpretation of the data contained in the statistical summaries.

##### Streamflow Data

A stream-discharge value is needed for each sample collected in order to compute constituent loads and to relate constituent loads to various types of discharge, such as base or flood flows. Two types of streamflow data are included in the statistical summaries: MEAN DISCHARGE, which is the mean streamflow for the day (daily-mean discharge); and STREAMFLOW, which is the discharge at approximately the same time the sample was collected (instantaneous discharge).

Daily-mean discharges are shown for those sites where data for composite samples are available or for sites where instantaneous-discharge measurements were not made. Composite samples, which were discontinued in 1969, usually consisted of combining several once-daily samples and analyzing the combined samples as a single sample. The analytical results of composite samples were considered to represent the water-quality characteristics of the stream for the total number of days during which the individual samples comprising the composite sample were collected. Therefore, a computed daily-mean discharge for the appropriate number of days was needed for interpretation of the data. Instantaneous discharges are available for most sites that have been operated since 1970.

The statistics for the two types of streamflow data for any particular site included in the summaries may vary significantly, primarily because the periods for which the values are reported usually were not identical. Also, the statistical values for streamflow are for the period and frequency of the water-quality record and not for the period and frequency of the streamflow record.

#### Specific Conductance and pH

In current (1978) programs, both specific conductance and pH are measured at the time a sample is collected whereas previously most of these determinations were made in the laboratory. Because large changes in specific conductance and pH occasionally can occur between the time of sample collection and the time of laboratory analysis, measurements made at the time of sample collection should be more representative of water in the stream. Laboratory values of specific conductance for the previously discussed composite samples sometimes are of limited worth in accurately portraying the actual specific conductance of the stream, however, the relations between major constituents and specific conductance determined in the laboratory are valid. No distinction between streamside and laboratory values is made for specific conductance or pH data included in the statistical summaries.

#### Nitrogen Constituents

The inclusion of similar nitrogen constituents represents a methodology change. Prior to late 1970, only nitrate concentrations were determined. Since late 1970, only determinations of nitrite plus nitrate have been made.

#### Dissolved Solids

Two values for dissolved-solids concentrations have been included in the statistical summaries. DISSOLVED SOLIDS, ROE 180 DEG C is a laboratory determination whereas DISSOLVED SOLIDS, SUM OF CONST is the arithmetic total of the major constituents determined. Only small differences between the two generally occur for most samples for which both values are available. However, significant differences in the extreme values occur for several sites. The most common reasons for the differences are that fewer laboratory determinations generally are available for a particular site and that arithmetic totals generally were computed only when dissolved solids were in excess of 1,000 mg/L.

#### Correlations Between Specific Conductance and Major Chemical Constituents

Values of specific conductance commonly are significantly correlated with concentrations of some of the major chemical constituents. For example, correlation coefficients of 0.85 or greater were obtained for dissolved solids at 84 percent of the 117 sites, for total hardness at 78 percent of the sites, for dissolved sodium at 73 percent of the sites, and for dissolved sulfate at 68 percent of the sites. In contrast, correlation coefficients of 0.85 or greater were obtained for silica at only 3 percent of the sites, and for fluoride at only 2 percent of the sites. However, this was not unexpected because silica does not contribute to specific conductance and fluoride concentrations generally are insignificant compared to concentrations of other major constituents.

In addition to the regression summaries presented in the statistical summaries, the observed concentrations of selected major constituents and concentrations predicted from linear analysis were plotted against specific conductance for each of the 117 sites. Examples of these plots for the Eagle River at Gypsum, Colo., are shown in figures 1 through 9. Similar plots for each of the other sites are available from the Colorado District of the U.S. Geological Survey. The example plots have been included to illustrate the relation between specific conductance and the observed and predicted concentrations of dissolved constituents.

#### EVALUATION OF WATER-QUALITY PROGRAMS

The tabulations of available water-quality data, statistical summaries, and linear-regression plots presented in this report were used to make the following evaluations of the water-quality programs in the State:

1. Changes in the frequency of collection of water-quality data and in the types of constituents determined can be made at many active sites in the State without adversely affecting the data-collection programs.
2. Data for major chemical constituents have been essential in the past; in some areas, frequent determinations of these constituents may continue to be needed to determine whether significant changes in water quality occur. However, because concentrations of some constituents in water from many locations can be estimated from specific conductance, program emphasis could change.
3. The majority of sites for which trace constituent data are available are located in the potential energy-producing areas. Trace constituent data are needed at many other sites throughout the State to more adequately define the water-quality characteristics of major streams.
4. Few determinations of total (dissolved plus suspended) concentrations of trace constituents, that is, concentrations in a water-sediment mixture, and almost no determinations of trace constituents in bottom material are available. Before questions concerning transport of trace constituents in a particular stream can be answered, much additional information concerning these phases is required, even at sites where data for dissolved trace constituents are available.
5. Additional nutrient data need to be obtained at most sites because data for the various nitrogen and phosphorus species are needed to evaluate the waste-assimilative capacities of streams. Because of manpower and economic constraints, most nutrient data collected in the past were either nitrate or nitrite plus nitrate concentrations. Information on the entire nitrogen and phosphorus cycles is required for comprehensive evaluations of these elements.

#### SELECTED REFERENCES

- American Public Health Association, American Water Works Association, and Water Pollution Control Federation, 1976, Standard methods for the examination of water and wastewater, including bottom sediment and sludges (14th ed.): Washington, D.C., American Public Health Association, Inc., 1193 p.
- Barr, A. J., Goodnight, J. H., Sall, J. P., and Helwig, J. T., 1976, A user's guide to SAS 76: Raleigh, N. C., SAS Institute, Inc., 329 p.
- Brennan, R. B., and Grozier, R. U., 1976, Salt-load computations--Colorado River; Cameo, Colorado, to Cisco, Utah, Part 1, Data summary: U.S. Geological Survey Open-File Report, 15 p.
- Colorado Department of Health, Water Quality Control Division, 1977, Primary drinking water regulations for the State of Colorado: Denver, Colorado Department of Health, 60 p.
- Skougstad, M. W., Fishman, M. J., Friedman, L. C., Erdmann, D. E., and Duncan, S. S., eds., 1979, Methods for determination of inorganic substances in water and fluvial sediments: U.S. Geological Survey Techniques Water-Resources Investigations, Book 5, Chapter A1, 626 p.
- U.S. Environmental Protection Agency, 1976, National interim primary drinking water regulations: U.S. Environmental Protection Agency, 570/9-76-003, 159 p.  
\_\_\_\_\_, 1977, National secondary drinking water regulations: Federal Register, v. 42, no. 62, Thursday, March 31, 1977, Part I, p. 17143-17147.

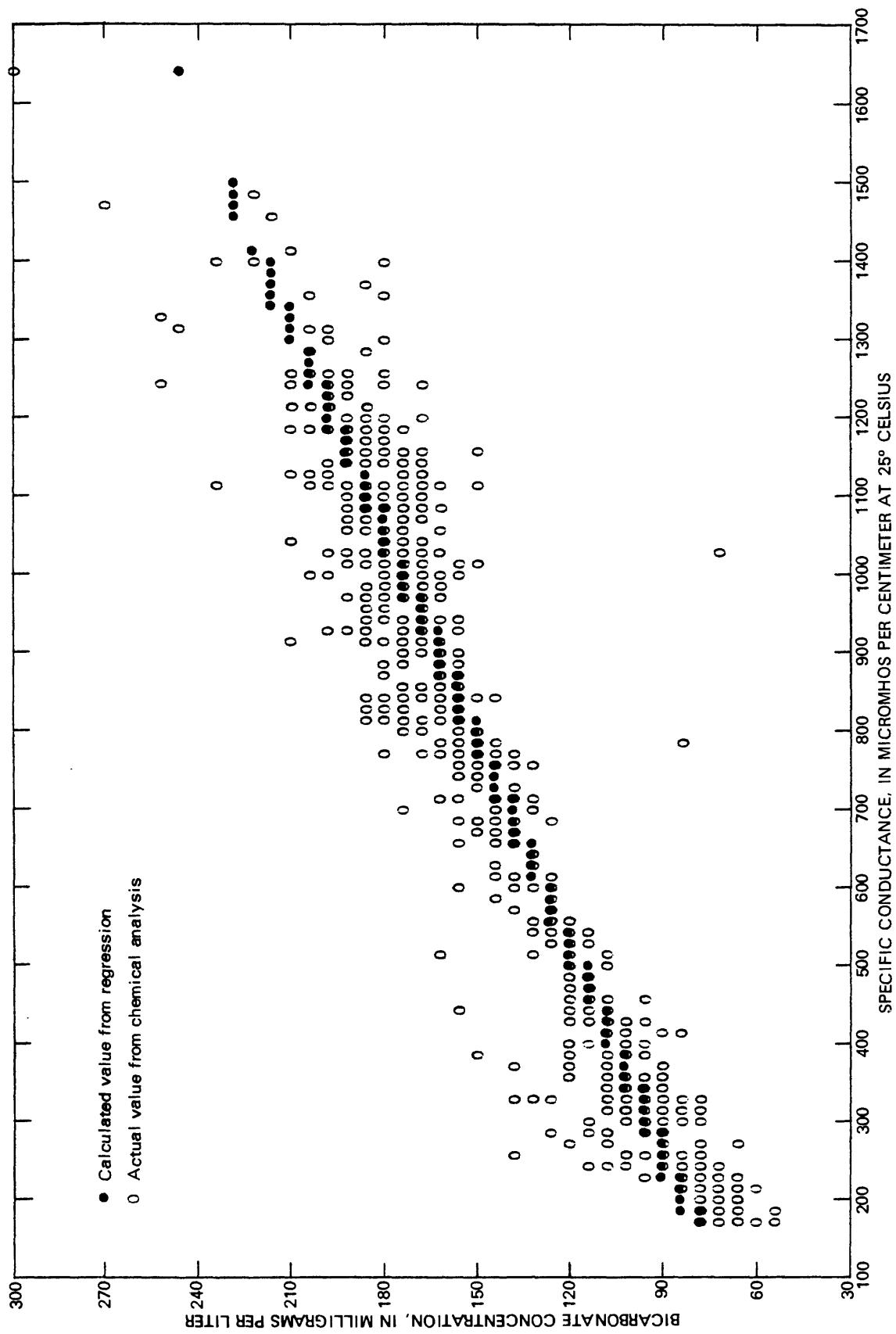


Figure 1.—Linear-regression analyses, specific conductance and bicarbonate, Eagle River at Gypsum, Colo.

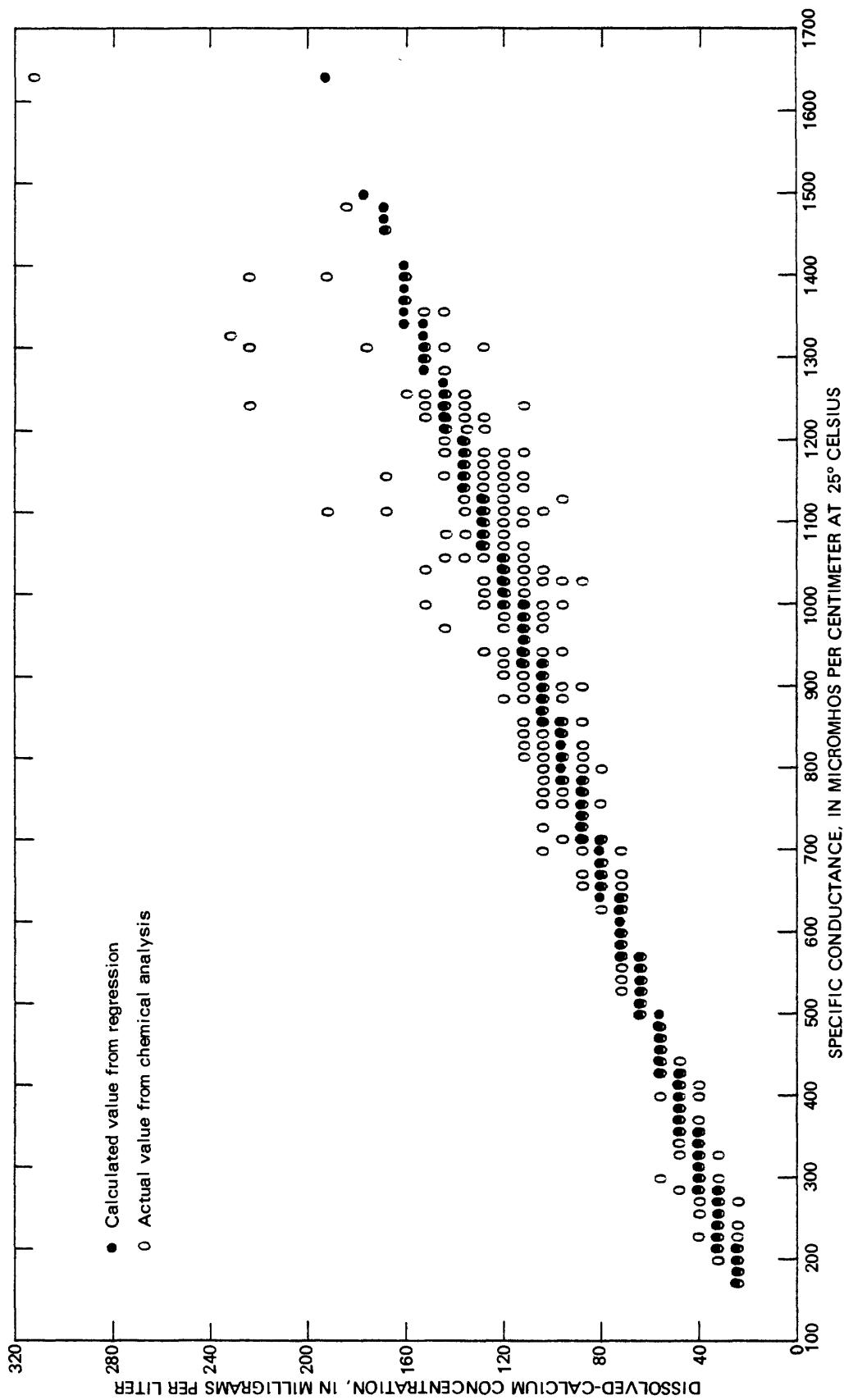


Figure 2.--Linear-regression analyses, specific conductance and dissolved calcium, Eagle River at Gypsum, Colo.

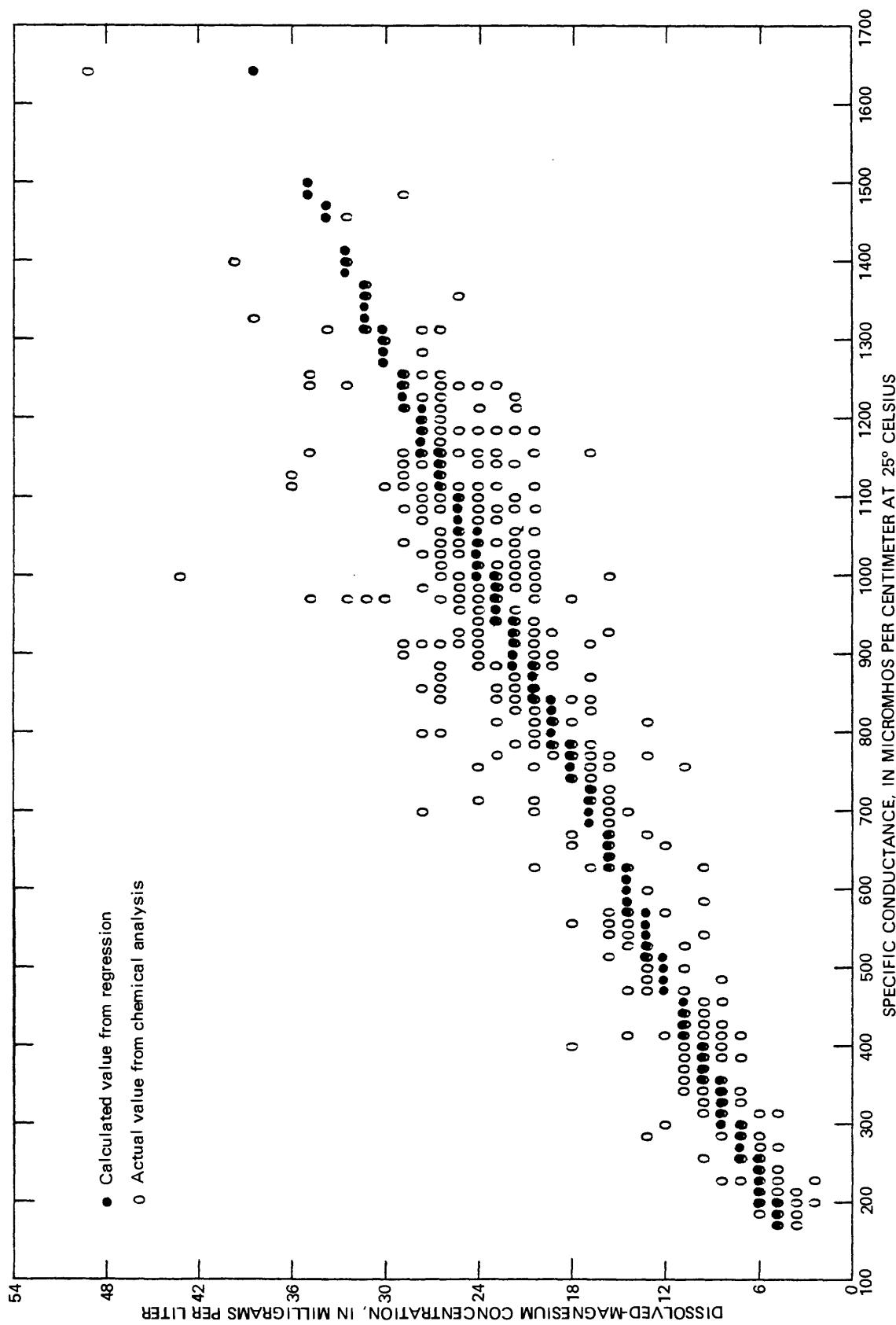


Figure 3.—Linear-regression analyses, specific conductance and dissolved magnesium, Eagle River at Gypsum, Colo.

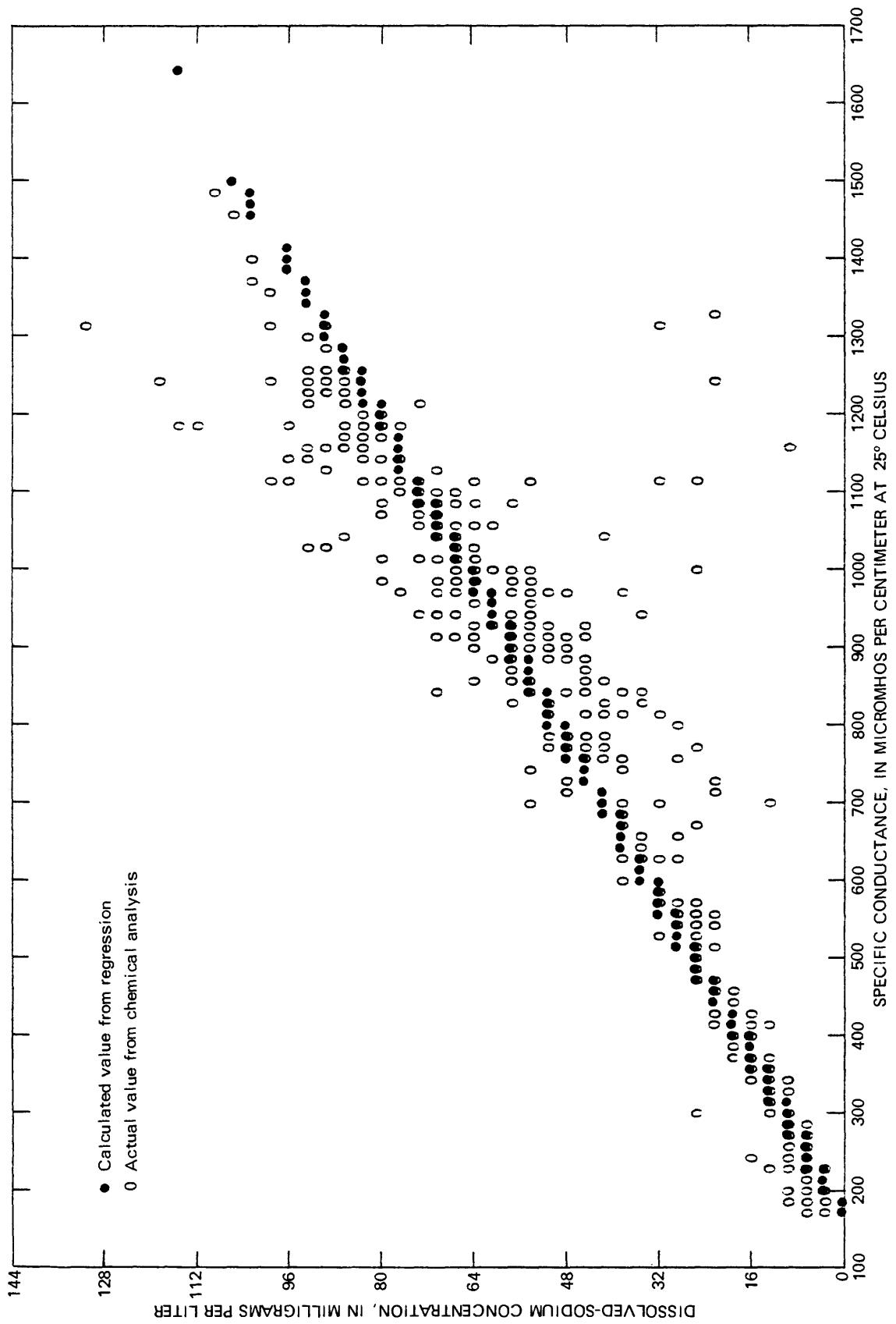


Figure 4.--Linear-regression analyses, specific conductance and dissolved sodium, Eagle River at Gypsum, Colo.

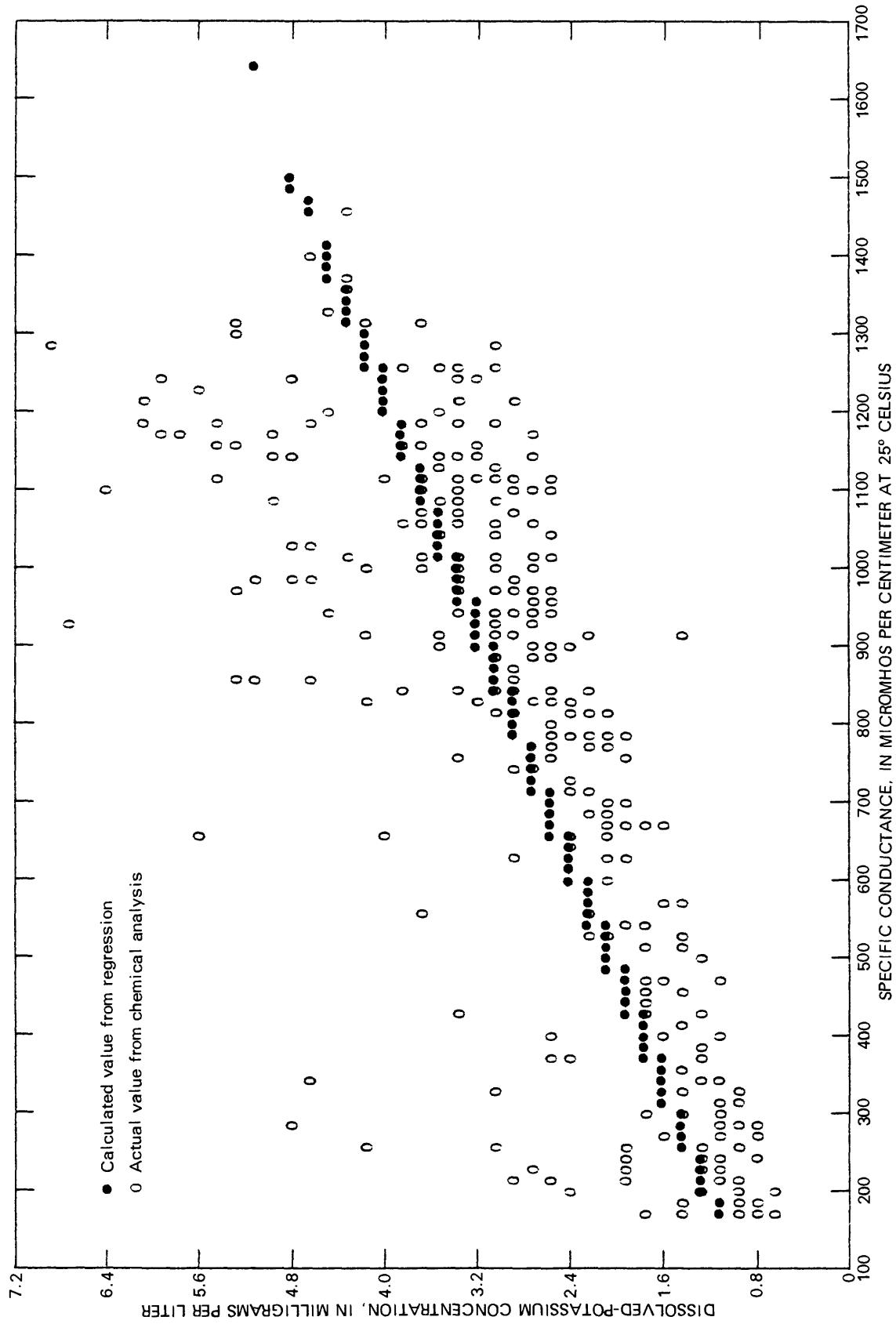


Figure 5.--Linear-regression analyses, specific conductance and dissolved potassium, Eagle River at Gypsum, Colo.

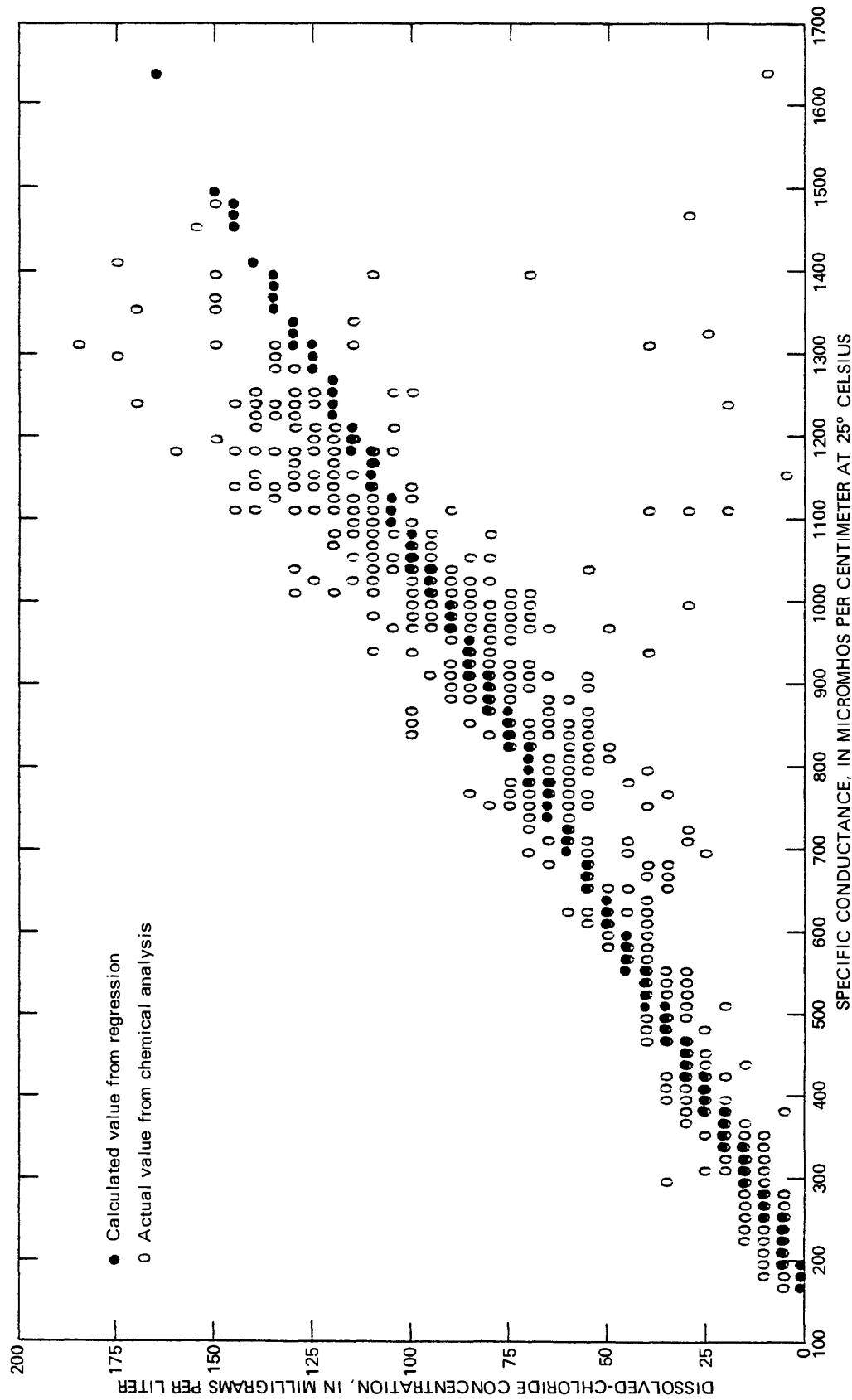


Figure 6.--Linear-regression analyses, specific conductance and dissolved chloride, Eagle River at Gypsum, Colo.

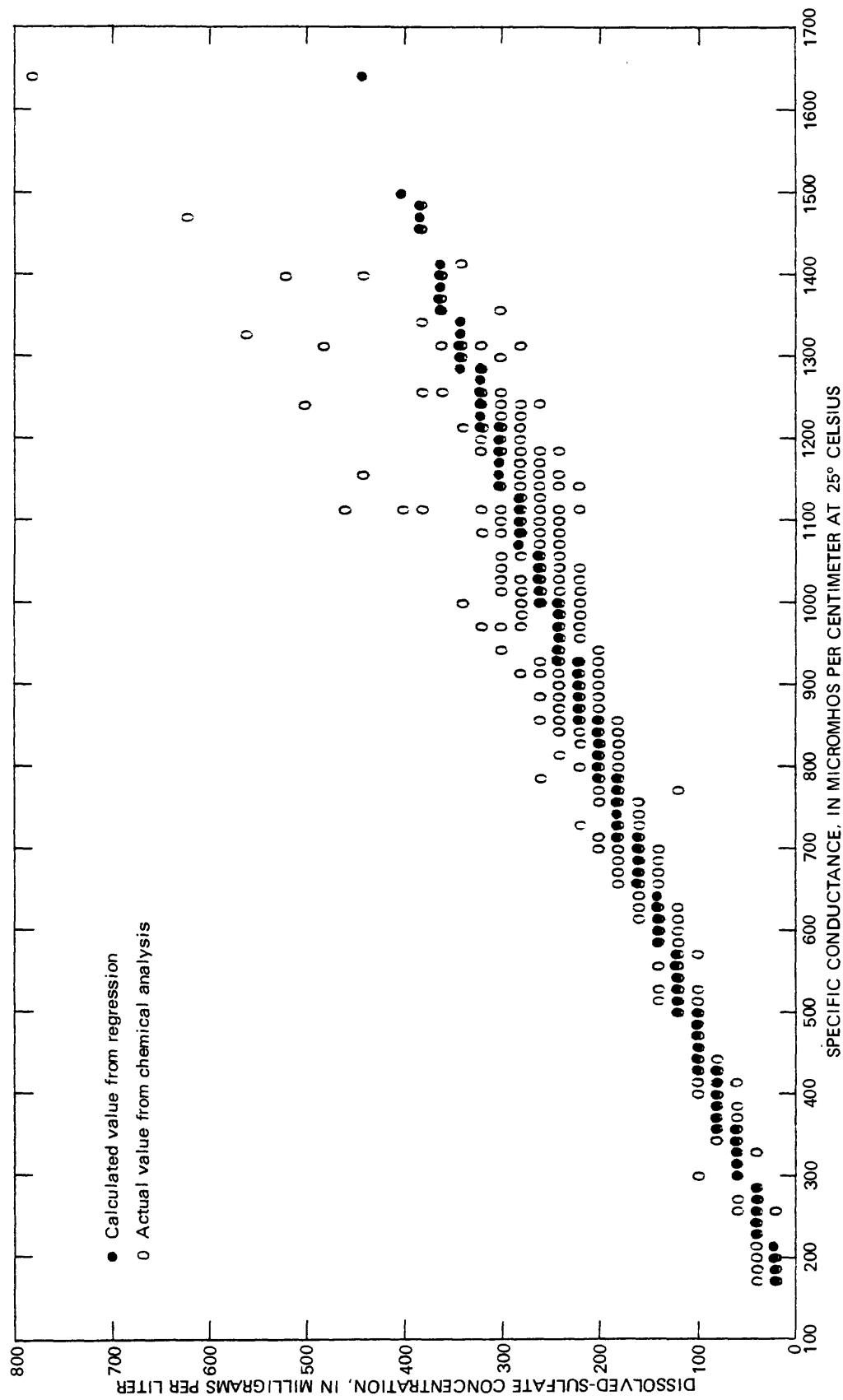


Figure 7.--Linear-regression analyses, specific conductance and dissolved sulfate, Eagle River at Gypsum, Colo.

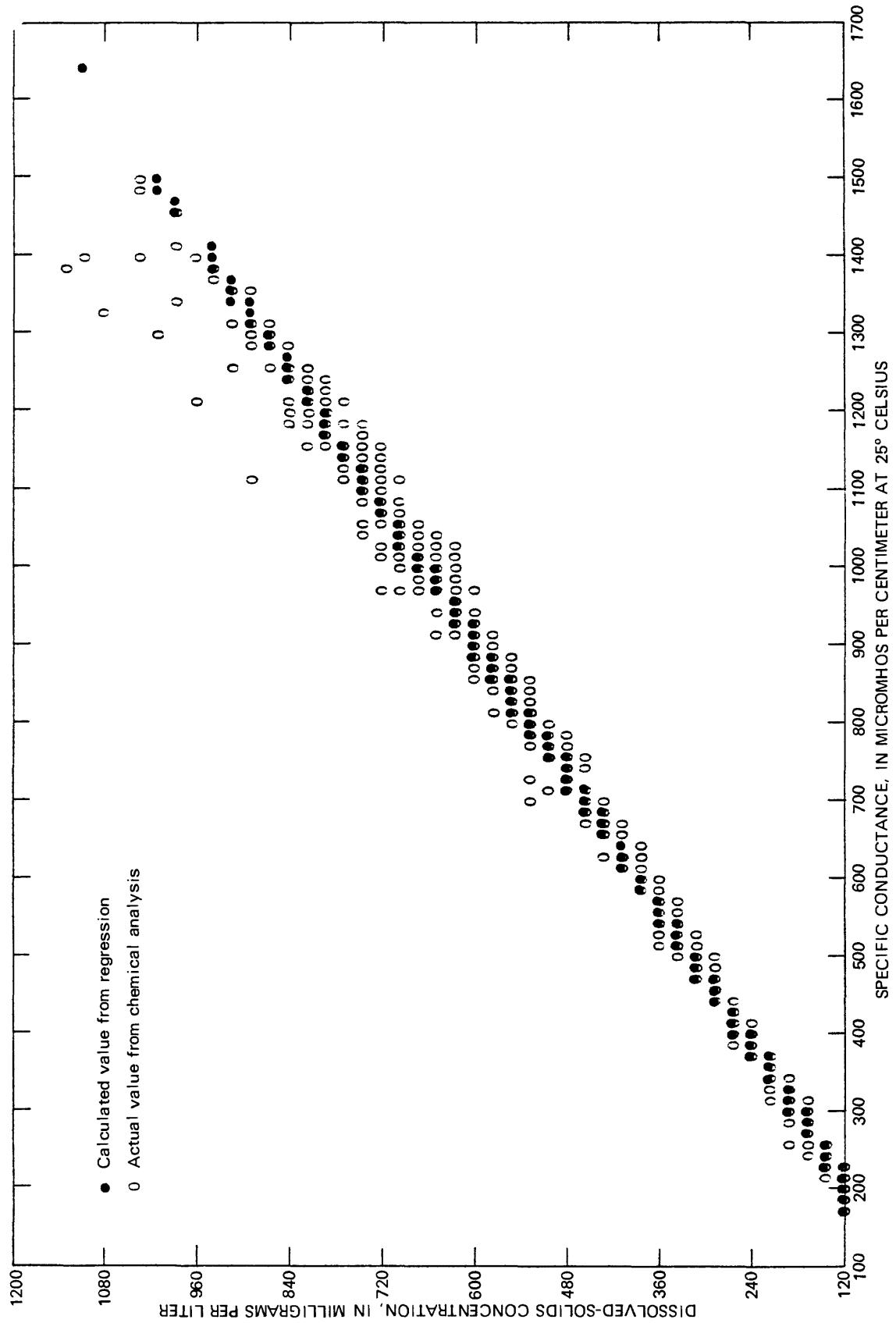


Figure 8.--Linear-regression analyses, specific conductance and dissolved solids, residue at 180° Celsius,  
Eagle River at Gypsum, Colo.

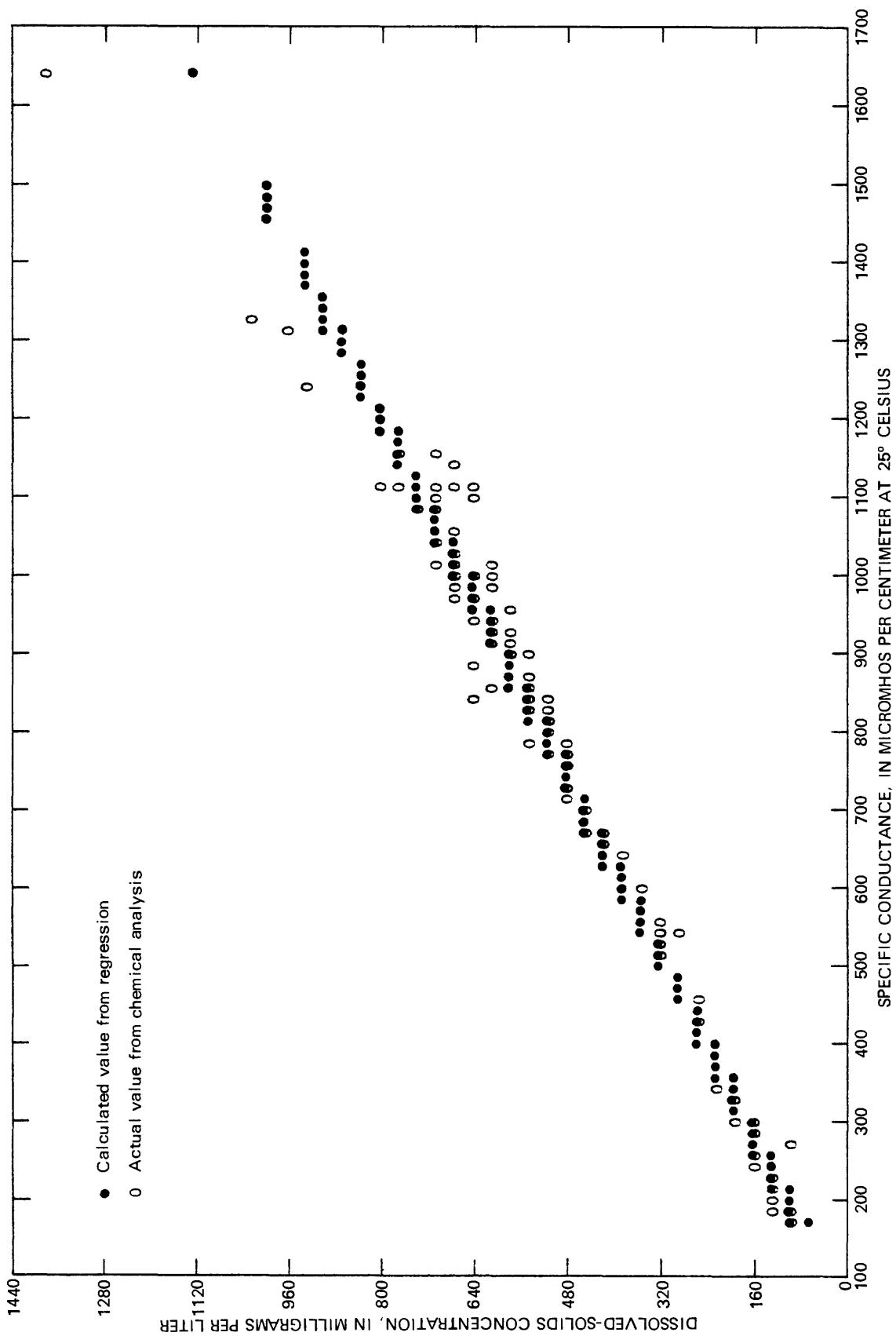


Figure 9.--Linear-regression analyses, specific conductance and dissolved solids, sum of constituents, Eagle River at Gypsum, Colo.

STATISTICAL SUMMARIES FOR 117 SITES

LAT 40 56.10" LONG 106 20.21" DRAINAGE AREA: 1431 SQ MI (3706.29 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 06620000 NAME: NORTH PLATE RIVER NEAR NORTHGATE, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY					
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	156	6.88	6.79	0.00	23.00		
STREAMFLOW, MEAN DAILY, (CFS)	105	465.34	544.68	54.00	2440.00		
STREAMFLOW (CUDIC FT/SEC.)	65	374.80	537.68	25.00	2880.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	150	274.63	48.41	160.00	440.00		
OXYGEN, DISSOLVED	60	8.89	1.43	6.70	12.80		
pH (STANDARD UNITS)	128			6.80	8.40		
BICARBONATE ION	162	136.93	29.54	79.00	320.00	130	0.44090
HARDNESS, TOTAL	162	111.96	24.17	66.00	260.00	130	0.39630
CALCIUM, DISSOLVED	162	31.36	6.35	19.00	72.00	130	0.08711
MAGNESIUM, DISSOLVED	162	8.17	2.78	2.40	19.00	130	0.04374
SODIUM, DISSOLVED	162	15.55	4.34	7.70	31.00	130	0.05632
POTASSIUM, DISSOLVED	162	2.15	0.87	0.10	5.80	130	0.00413
CHLORIDE, DISSOLVED	162	3.47	2.28	0.00	15.00	130	0.0164
SULFATE, DISSOLVED	162	27.41	9.90	8.20	66.00	130	0.14222
SILICA, DISSOLVED	162	11.15	3.59	0.10	33.00	130	0.01772
BORON, DISSOLVED, UG/L	102	43.14	37.73	0.00	280.00		
DISSOLVED SOLIDS, ROE 180 DEG C	101	172.75	30.18	110.00	264.00	101	0.60826
DISSOLVED SOLIDS, SUM OF CONST	126	166.38	34.97	91.00	376.00	94	0.56500

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE  
DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

	1%	5%	10%	25%	50%	75%	90%	95%	99%
EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	474	416	392	318	271	252	241	233	226

SAMPLE SIZE = 349

CONSTITUENT	DISSOLVED			
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES CONC.
TOTAL	21	80.00	470.00	0.9628

MINOR ELEMENTS:  
IRON (FE), UG/L

LAT 39°48'02" LONG 104°57'32"

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06714200

NAME: BURLINGTON DITCH BELOW HEADGATE AT DENVER, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	24	14.04	5.62	1.11	26.00			
STREAMFLOW, MEAN DAILY (CFS)	58	124.34	153.06	4.40	816.00			
STREAMFLOW (CUBIC FT/SEC)	2	123.50	146.37	20.00	227.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	62	977.63	290.81	258.00	1640.00			
pH (STANDARD UNITS)	62							
BICARBONATE ION	62	276.50	125.38	68.00	598.00	62	0.34568	-61.44937
HARDNESS, TOTAL	62	233.37	51.11	82.00	340.00	62	0.13364	102.72398
CALCIUM, DISSOLVED	62	65.53	15.40	26.00	103.00	62	0.03284	33.42792
MAGNESIUM, DISSOLVED	62	17.05	5.48	4.40	29.00	62	0.01246	12.17791
SODIUM, DISSOLVED	62	108.04	43.20	20.00	218.00	62	0.14390	-32.5906
POTASSIUM, DISSOLVED	62	7.64	3.06	1.60	15.00	62	0.00912	-1.22621
CHLORIDE, DISSOLVED	60	100.12	46.50	16.00	230.00	60	0.14400	-44.13976
SULFATE, DISSOLVED	61	111.77	44.01	8.80	220.00			
SILICA, DISSOLVED	62	14.20	2.59	8.50	19.00	62	0.00587	8.46639
BORON, DISSOLVED, ug/l	62	286.45	134.70	40.00	690.00			
DISSOLVED SOLIDS, ROE 180 DEG C	62	576.32	156.98	164.00	968.00	62	0.52470	63.35522
								0.9721

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06720500 NAME: SOUTH PLATTE RIVER AT HENDERSON, CO.  
 LAT 39 55'19" LONG 104 52'00" DRAINAGE AREA: 4713 SQ MI (12206.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT A	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	153	13.59	6.12	1.11	28.00			
STREAMFLOW, MEAN DAILY. (CFS)	171	504.85	859.15	21.00	6750.00			
STREAMFLOW (CUBIC FT/SEC)	79	359.83	570.67	18.70	2976.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	255	963.94	319.08	225.00	1470.00			
OXYGEN, DISSOLVED	43	6.54	1.39	4.20	10.00			
P.H. (STANDARD UNITS)	253			6.40	8.50			
BICARBOONATE ION	194	225.35	91.18	49.00	636.00	193	0.24709	-11.96358
NITRITE + NITRATE, DISSOLVED AS N	19	2.80	2.80	0.00	10.00			
ORTHOPHOSPHATE, DISSOLVED AS P	16	3.32	2.49	0.12	7.90			
MAGNESIUM, TOTAL	215	253.41	79.87	64.00	450.00	214	0.23520	25.73232
CALCIUM, DISSOLVED	215	12.75	23.80	18.00	135.00	214	0.06806	6.85742
MAGNESIUM, DISSOLVED	215	17.48	6.03	4.60	34.00	214	0.01632	1.69445
SODIUM, DISSOLVED	194	102.71	38.61	17.00	185.00	193	0.12000	-13.46574
POTASSIUM, DISSOLVED	182	7.38	2.68	1.50	14.00	181	0.00674	0.00100
CHLORIDE, DISSOLVED	215	85.05	37.21	2.00	194.00	214	0.10459	-15.96074
SULFATE, DISSOLVED	194	162.65	62.04	43.00	305.00	193	0.16167	7.14423
SILICA, DISSOLVED	193	15.60	3.21	6.20	28.00	192	0.00627	9.52441
BORON, DISSOLVED, UG/L	126	202.14	174.22	0.06	56.00			
DISSOLVED SOLIDS, ROE 180 DEG C	178	607.25	202.11	147.00	980.00	177	0.62786	3.59501
DISSOLVED SOLIDS, SUM OF CONST	117	580.74	213.28	143.00	924.00	116	0.65525	-17.13328

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
 MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

1% 5% 10% 25% 50% 75% 90% 95% 99%

1560 1330 1300 1240 1130 988 850 729 551

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 736
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	

MINOR ELEMENTS:

ARSENIC (AS) • UG/L  
 CADMIUM (CD) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (Pb) • UG/L  
 MANGANESE (Mn) • UG/L  
 SELENIUM (Se) • UG/L  
 ZINC (Zn) • UG/L

9 0.00 30.00  
 9 0.00 2.00  
 1 4.00 4.00  
 76 0.00 400.00  
 2 2.00 14.00  
 52 0.00 900.00  
 5 0.00 10.00  
 30.00 39.00

LAT 40 13°19" LONG 105 21°29"

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06722000

NAME: N ST. VRAIN CREEK AT LONGMONT DAM, NR LYONS, CO.

DRAINAGE AREA: 106.001 SQ MI (274.543 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R, CONSTANT B, CORRELATION COEFFICIENT R, STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	108	7.58	4.45	0.00	11.50	
STREAMFLOW (CUBIC FT/SEC)	2	77.00	94.75	10.00	144.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	79	27.88	9.05	18.00	73.00	
OXYGEN, DISSOLVED	84	9.50	1.02	7.60	11.40	
pH (STANDARD UNITS)	106			5.40	8.60	
BICARBONATE ION	83	12.19	2.73	6.00	19.00	77
NITRITE + NITRATE, DISSOLVED AS N	83	0.06	0.06	0.00	0.45	
ORTHOPHOSPHATE, DISSOLVED AS P	83	0.01	0.01	0.00	0.08	
HARDNESS, TOTAL	83	10.94	2.94	7.00	26.00	77
CALCIUM, DISSOLVED	83	3.30	0.76	2.00	5.80	77
MAGNESIUM, DISSOLVED	83	0.66	0.36	0.10	2.90	77
SODIUM, DISSOLVED	83	1.89	0.61	1.00	4.00	77
POTASSIUM, DISSOLVED	83	0.40	0.16	0.00	1.00	
CHLORIDE, DISSOLVED	83	0.72	0.36	0.10	1.70	77
SULFATE, DISSOLVED	82	4.09	2.21	1.50	16.00	76
SILICA, DISSOLVED	83	5.41	1.30	2.60	10.00	
DISSOLVED SOLIDS, SUM OF CONST	82	23.09	4.72	15.00	45.00	76
					0.37541	12.40748
						0.7119
						3.30075

CONSTITUENT	TOTAL DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
IRON (FE) • UG/L	83	30.00	270.00
MANGANESE (MNI) • UG/L	83	0.00	160.00

MINOR ELEMENTS:

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06723400 NAME: SOUTH SJ. VRAIN CREEK ABOVE LYONS, CO.  
 LAT 40 12'40" LONG 105 16'47" DRAINAGE AREA: 81.401 50 MI (210.829 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	SAMPLE MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	108	8.75	6.09	0.00	20.00			
STREAMFLOW (CUBIC FT/SEC)	23	41.58	51.96	4.30	182.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	102	59.84	16.23	25.00	90.00			
OXYGEN, DISSOLVED	82	9.60	1.39	7.10	12.10			
P <sub>4</sub> (STANDARD UNITS)	105			5.60	8.80			
BICARBONATE ION	84	26.69	7.34	11.00	41.00	0.37323	5.24347	0.8505
NITRITE + NITRATE, DISSOLVED AS N	84	0.13	0.13	0.00	0.80			
ORTHOPHOSPHATE, DISSOLVED AS P	83	0.01	0.02	0.00	0.12			
HARDNESS, TOTAL	83	23.22	5.75	12.00	38.00	0.32583	4.33754	0.9295
CALCIUM, DISSOLVED	84	6.83	1.60	3.70	11.00	0.08610	1.86760	0.8921
MAGNESIUM, DISSOLVED	83	1.46	0.50	0.40	2.60	0.02800	-0.1658	0.9065
SODIUM, DISSOLVED	84	3.07	1.17	0.80	6.00	0.06001	-0.38842	0.8431
POTASSIUM, DISSOLVED	84	0.55	0.18	0.20	1.10	0.00617	0.19477	0.5611
CHLORIDE, DISSOLVED	84	1.10	0.66	0.00	3.30	0.02226	-0.8470	0.5567
SULFATE, DISSOLVED	83	5.70	2.42	2.00	17.00	0.08529	0.79421	0.5800
SILICA, DISSOLVED	84	7.68	2.10	3.10	12.00	0.09169	2.04311	0.7657
DISSOLVED SOLIDS, SUM OF CONST	82	40.35	10.10	19.00	64.00	0.58358	6.67732	0.9501
		TOTAL			DISSOLVED			
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
MINOR ELEMENTS:								
ARSENIC (AS), ug/l				1	1.00	1.00		
CADMIUM (CD), ug/l				1	3.00	3.00		
COPPER (CU), ug/l				1	2.00	2.00		
IRON (FE), ug/l				84	10.00	220.00		
LEAD (PB), ug/l				1	6.00	6.00		
MANGANESE (MN), ug/l				63	0.00	40.00		
MERCURY (HG), ug/l				1	0.00	0.00		
SELENIUM (SE), ug/l				1	0.00	0.00		
ZINC (Zn), ug/l				1	20.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 067240000 NAME: ST. VRAIN CREEK AT LYONS, CO.  
 LAT 40 13'05" LONG 105 15'34" DRAINAGE AREA: 212.001 SQ MI (549.083 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION			REGRESSION			STANDARD ERROR OF ESTIMATE		
	CONCENTRATION (MG/L OR UNIT SHOWN)	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	COEFFICIENT, A	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	93	10.39	6.27	0.40	24.00				
STREAMFLOW, MEAN DAILY, (CFS)	45	74.20	123.62	4.40	594.00				
STREAMFLOW (CUHIC FT/SEC)	37	71.17	131.20	0.90	614.00				
SPECIFIC CONDUCTANCE (MICROMHOS),	28	67.07	23.97	25.00	123.00				
OXYGEN, DISSOLVED	24	9.28	1.39	7.50	11.60				
pH (STANDARD UNITS)	27			6.80	8.10				
BICARBOONATE ION	28	26.96	9.14	10.00	44.00	28	0.34026	4.14409	0.8925
NITRITE + NITRATE, DISSOLVED AS N	26	0.23	0.21	0.03	0.88				
ORTHOPHOSPHATE, DISSOLVED AS P	26	0.08	0.13	0.00	0.63				
MARINESS, TOTAL	28	25.29	8.35	9.00	45.00	28	0.32325	3.60636	0.9277
CALCIUM, DISSOLVED	28	7.43	2.40	3.10	14.00	28	0.09179	1.26890	0.9156
MAGNESIUM, DISSOLVED	28	1.65	0.65	0.40	3.10	28	0.02306	0.10725	0.8450
SODIUM, DISSOLVED	28	3.35	1.28	1.40	5.50	28	0.04603	0.26312	0.8644
POTASSIUM, DISSOLVED	28	0.57	0.24	0.00	1.00				
CHLORIDE, DISSOLVED	28	1.33	0.69	0.30	3.20	28	0.01481	0.06709	0.5559
SULFATE, DISSOLVED	28	7.64	3.55	2.70	19.00	28	0.10670	0.43300	0.7214
SILICA, DISSOLVED	28	6.74	1.64	3.60	12.00	28	0.03058	4.68A24	0.4475
DISSOLVED SOLIDS, ROE 180 DEG C	2	68.00	8.49	62.00	74.00	2	-0.59735	110.87415	-1.0000
DISSOLVED SOLIDS, SUM OF CONST	26	41.77	11.04	21.00	62.00	26	0.48418	10.81740	0.9397

CONSTITUENT	TOTAL			DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
MINOR ELEMENTS:							
ARSENIC (AS), ug/l	2	0.00	8.00				
CADMIUM (CD), ug/l	2	0.00	0.00				
COPPER (CU), ug/l	2	1.00	2.00				
IRON (FE), ug/l	25	30.00	200.00				
LEAD (PB), ug/l	2	0.00	2.00				
MANGANESE (MN), ug/l	26	0.00	20.00				
MERCURY (HG), ug/l	1	0.00	0.00				
SELENIUM (SE), ug/l	1	0.00	0.00				
ZINC (ZN), ug/l	2	0.00	10.00				

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06724600 NAME: LEFT HAND CREEK AT ALTONA, CO.

LAT 40 07'57" LONG 105 17'24"

DRAINAGE AREA: 59.001 SQ MI (152.813 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	96	7.07	5.94	0.00	20.00			
STREAMFLOW (CUBIC FT/SEC)	12	17.85	17.72	4.40	51.00			
SPECIFIC CONDUCTANCE (MICROMhos)	94	150.04	77.18	31.00	360.00			
OXYGEN, DISSOLVED,	72	9.86	1.29	7.00	11.90			
P <sub>4</sub> (STANDARD UNITS)	95			5.60	8.30			
BICARBONATE 10 <sup>-4</sup>	72	27.08	11.06	10.00	55.00	71	0.10542	11.94032
NITRITE + NITRATE, DISSOLVED AS N	72	0.14	0.11	0.00	0.46			
ORTHOPHOSPHATE, DISSOLVED AS P	72	0.08	0.33	0.00	2.20			
HARDNESS, TOTAL	72	53.72	27.40	15.00	140.00	71	0.34498	4.00682
CALCIUM, DISSOLVED	72	15.03	7.32	4.40	36.00	71	0.09223	1.74338
MAGNESIUM, DISSOLVED	72	3.92	2.19	0.90	11.00	71	0.02732	-0.01775
SODIUM, DISSOLVED	72	6.46	4.21	1.30	21.00	71	0.04914	-0.61229
POTASSIUM, DISSOLVED	72	1.03	0.44	0.40	2.20	71	0.00420	0.42842
CHLORIDE, DISSOLVED	71	1.26	0.67	0.20	3.20	70	0.44556	0.6491
SULFATE, DISSOLVED	72	40.91	27.32	6.40	130.00	71	0.34078	-8.12254
SILICA, DISSOLVED	72	9.12	2.99	3.60	17.00	71	0.03069	4.61461
DISSOLVED SOLIDS, SUM OF CONST	71	94.34	48.24	26.00	233.00	70	0.61478	5.06268

CONSTITUENT	TOTAL			DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
IRON (FE), UG/L	71	0.00	350.00	71	0.00	350.00	
MANGANESE (MN), UG/L							170.00

MINOR ELEMENTS:  
 IRON (FE), UG/L  
 MANGANESE (MN), UG/L

STATION NUMBER: 06725000      NAME: LEFT HAND CREEK AT MOUTH, AT LONGMONT, CO.  
 LAT 40 08'50" LONG 105 06'05" DRAINAGE AREA: 72.001 SQ MI (186.483 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	REGRESSION COEFFICIENT, R	CONSTANT, B					CORRELATION COEFFICIENT		
TEMPERATURE, WATER (DEG C)	30 11.84	6.55	1.00	25	2.00					
STREAMFLOW (CUBIC FT/SEC)	20 4.05	2.28	2.00	13	1.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	24 1481.04	327.29	400.00	1820	0.00					
OXYGEN, DISSOLVED	24 10.39	1.98	6.60	13	1.50					
pH (STANDARD UNITS)	24									
BICARBONATE ION	22 336.18	84.79	84.00	430	0.00	22	0.23581	-15.86556	0.9365	30.47164
NITRITE + NITRATE, DISSOLVED AS N	22 1.85	0.58	0.32	29	0.00					
ORTHOPHOSPHATE, DISSOLVED AS P	23 0.04	0.12	0.00	60	0.00					
HARDNESS, TOTAL	23 640.43	152.93	160.00	790	0.00	23	0.45150	-27.88800	0.9879	24.23609
CALCIUM, DISSOLVED	23 129.00	29.61	36.00	160	0.00	23	0.08754	-0.58168	0.9892	4.45049
MAGNESIUM, DISSOLVED	23 76.65	20.35	16.00	96	0.00	23	0.05609	-6.36960	0.9221	8.05951
SODIUM, DISSOLVED	23 108.74	29.28	19.00	150	0.00	23	0.08561	-17.97701	0.9783	6.21049
POTASSIUM, DISSOLVED	23 3.35	1.18	1.90	74	0.00					
CHLORIDE, DISSOLVED	23 9.93	2.55	2.70	15	0.00	23	0.00634	0.54533	0.8324	1.44556
SULFATE, DISSOLVED	23 542.61	135.02	110.00	750	0.00	23	0.39507	-42.18192	0.9791	28.08666
SILICA, DISSOLVED	23 10.40	1.48	8.10	14	0.00					
DISSOLVED SOLIDS, SUM OF CONST	22 1063.55	254.99	248.00	1370	0.00	22	0.75331	-61.10819	0.9948	26.61574

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE), ug/l	23	10.00	150.00			
MANGANESE (Mn), ug/l	23	30.00	380.00			

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06725450 NAME: ST. VRAIN CREEK BELOW LONGMONT, CO.  
 LAT 40 09'29" LONG 105 00'53" DRAINAGE AREA: 424.001 SQ MI (1098.16 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	MEAN	STANDARD	REGRESSION COEFFICIENT R					CONSTANT B	CORRELATION COEFFICIENT R <sub>H</sub>	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	37	11.51	6.76	1.00	26.00					
STREAMFLOW (CUBIC FT/SEC)	32	70.59	77.06	24.00	438.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	24	1457.92	291.99	360.00	1900.00					
OXYGEN, DISSOLVED	23	8.73	1.90	5.40	13.20					
pH (STANDARD UNITS)	24			7.60	8.60					
BICARBONATE ION	24	280.21	60.98	68.00	364.00		24	0.15796	49.91451	0.7563 40.79324
NITRITE + NITRATE, DISSOLVED AS N	24	2.37	0.69	0.50	3.70					
ORTHOPHOSPHATE, DISSOLVED AS P	24	0.12	0.12	0.01	0.57					
HARDNESS, TOTAL	24	613.33	126.93	130.00	820.00		24	0.41579	7.14265	0.9565 37.84546
CALCIUM, DISSOLVED	24	113.75	21.45	28.00	130.00		24	0.06776	14.96862	0.9222 8.48540
MAGNESIUM, DISSOLVED	24	80.04	18.40	15.00	120.00		24	0.05966	-6.94443	0.9466 6.06407
SODIUM, DISSOLVED	24	108.25	25.44	20.00	170.00		24	0.07845	-6.11797	0.9003 11.32362
POTASSIUM, DISSOLVED	24	5.66	1.56	1.60	9.00		24	0.00428	-0.57372	0.8023 0.95003
CHLORIDE, DISSOLVED	24	19.07	6.43	5.80	36.00		24	0.01330	-0.31716	0.6040 0.24039
SULFATE, DISSOLVED	24	553.75	136.25	100.00	910.00		24	0.43202	-76.09806	0.9259 52.63999
SILICA, DISSOLVED	24	9.01	1.41	6.80	15.00		24	0.73593	-33.00878	0.9608 63.36174
DISSOLVED SOLIDS, SUM OF CONST	24	1039.92	223.64	214.00	1500.00		24			

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE) • UG/L	24	10.00	720.00			
MANGANESE (MNI) • UG/L	24	20.00	200.00			

LAT 40 15°29'N LONG 104 52°45'W DRAINAGE AREA: 976,001 SQ MI (2527.84 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06731000 NAME: ST. VRAIN CREEK AT MOUTH, NEAR PLATTEVILLE, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	171	11.71	7.72	0.00 - 26.50		
STREAMFLOW, MEAN DAILY (CFS)	122	217.73	246.73	40.00 - 1780.00		
STREAMFLOW (CUBIC FT/SEC)	58	166.77	174.17	39.40 - 1290.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	174	1386.81	299.46	360.00 - 2080.00		
OXYGEN, DISSOLVED	91	8.73	1.25	6.20 - 11.50		
P <sub>1</sub> (STANDARD UNITS)	173			6.80 - 6.70		
BICARBONATE ION	140	281.99	56.28	83.00 - 450.00	139	0.16192
NITRITE + NITRATE, DISSOLVED AS N	97	2.57	0.99	0.01 - 5.00		
ORTHOPHOSPHATE, DISSOLVED AS P	97	0.40	0.44	0.00 - 3.10		
HARDNESS, TOTAL	138	554.52	121.65	130.00 - 820.00	137	0.41535
CALCIUM, DISSOLVED	138	101.04	20.15	27.00 - 140.00	137	0.06623
MAGNESIUM, DISSOLVED	138	73.70	17.95	15.00 - 116.00	137	0.06623
SODIUM, DISSOLVED	134	120.34	29.28	23.00 - 189.00	133	0.10242
POTASSIUM, DISSOLVED	124	5.18	1.48	1.70 - 11.00	123	0.00204
CHLORINE, DISSOLVED	138	28.16	7.51	5.90 - 56.00	137	0.01783
SULFATE, DISSOLVED	140	520.74	141.11	88.00 - 955.00	139	0.46898
SILICA, DISSOLVED	136	8.65	1.76	3.00 - 14.00		
DISSOLVED SOLIDS, ROE 180 DEG C	1020	43	270.01	74.90 - 420.00		
DISSOLVED SOLIDS, SUM OF CONST	120	1188.63	214.52	561.00 - 1610.00	43	0.85289
		1007.46	226.83	213.00 - 1440.00	119	0.79916
						-113.697
						-122.966
						0.9836
						0.9826
						42.35875

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	DISOLVED	
				NO. SAMPLES	MINIMUM CONC.
MINOR ELEMENTS:					
ARSENIC (AS), $\mu\text{g/l}$	1	2.00	2.00		
CADMIUM(CD), $\mu\text{g/l}$	1	0.00	0.00		
COPPER (CU), $\mu\text{g/l}$	1	2.00	2.00		
IRON (FE), $\mu\text{g/l}$	99	10.00	970.00		
LEAD (PB), $\mu\text{g/l}$	1	0.00	0.00		
YANGANESE (Mn), $\mu\text{g/l}$	92	0.00	780.00		
ZINC (Zn), $\mu\text{g/l}$	1	10.00	10.00		

LAT 40 22°30" LONG 105 29°13"

STATION NUMBER: 06734900 NAME: OLYMPUS TUNNEL AT LAKE ESTES, CO.

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06734900 NAME: OLYMPUS TUNNEL AT LAKE ESTES, CO.

## REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT H CONSTANT B
TEMPERATURE, WATER (DEG C)	92	7.12	5.52	0.00	18.50	
STREAMFLOW, MEAN DAILY, (CFS)	40	432.12	125.39	0.00	575.00	
STREAMFLOW (CUBIC FT /SEC)	34	508.97	108.20	100.00	587.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	70	57.56	12.21	17.00	95.00	
OXYGEN, DISSOLVED	93	8.69	1.04	6.80	11.70	
P-4 (STANDARD UNITS)	90	24.17	7.51	6.30	8.70	
BICARBOONATE ION	36	0.17	0.37	0.01	2.30	
NITRITE + NITRATE, DISSOLVED AS N	36	0.01	0.01	0.00	0.07	
ORTHOPHOSPHATE, DISSOLVED AS P	36	0.01	0.01	0.00	0.07	
HARDNESS, TOTAL	36	20.97	6.08	7.00	39.00	
CALCIUM, DISSOLVED	36	6.30	1.59	2.60	9.60	
MAGNESIUM, DISSOLVED	36	1.27	0.59	0.10	3.70	
SODIUM, DISSOLVED	36	2.09	0.57	0.90	3.70	
POTASSIUM, DISSOLVED	36	0.72	0.27	0.20	1.80	
CHLORIDE, DISSOLVED	36	0.78	0.39	0.30	6.30	
SULFATE, DISSOLVED	36	4.55	2.57	1.80	14.00	
SILICA, DISSOLVED	36	4.68	0.86	3.10	6.80	
DISSOLVED SOLIDS, ROE 180 DEG C	35	33.74	10.29	10.00	66.00	
DISSOLVED SOLIDS, SUM OF CONST	36	33.33	8.88	16.00	57.00	

42

CONSTITUENT	TOTAL DISSOLVED			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
IRON (FE) * UG/L	36	40.00	260.00	36	0.00	20.00
MANGANESE (Mn), UG/L						

MINOR ELEMENTS:  
 IRON (FE) \* UG/L  
 MANGANESE (Mn), UG/L

LAT 40 36°00" LONG 105 10°06"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06737500 NAME: HORSETOOTH RESERVOIR NEAR FORT COLLINS, CO.

CONSTITUENT	REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE			REGRESSION SUMMARY		
	CONCENTRATION (MG/L OR UNIT SHOWN)	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, CONSTANT, CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	4.23	9.98	5.44	2.00	25.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	33.0	80.90	15.87	52.00	200.00	
OXYGEN, DISSOLVED	289	8.34	1.92	0.00	12.00	
P <sub>H</sub> (STANDARD UNITS)	222			5.30	8.30	
BICARBONATE ION	6	37.67	4.41	33.00	42.00	
NITRITE + NITRATE, DISSOLVED AS N	194	0.11	0.08	0.00	0.50	
ORTHOPHOSPHATE, DISSOLVED AS P	2	0.03	0.00	0.03	0.03	
HARDNESS, TOTAL	27.50	0.71	27.00	28.00	2	-0.09091
CALCIUM, DISSOLVED	6	8.18	1.05	6.40	9.60	34.027273
MAGNESIUM, DISSOLVED	6	3.32	1.43	1.50	4.60	-1.0000
SODIUM, DISSOLVED	2	2.95	0.64	2.50	3.40	
POTASSIUM, DISSOLVED	2	0.75	0.07	0.70	0.80	
CHLORIDE, DISSOLVED	3	0.77	0.58	0.10	1.10	
SULFAE, DISSOLVED	2	7.70	3.25	5.40	10.00	
SILICA, DISSOLVED	2	4.50	0.28	4.30	4.70	
BORON, DISSOLVED, UG/L	360.00	0.00	360.00	360.00		
DISSOLVED SOLIDS, ROE 180 DEG C	231	52.70	8.93	35.00	81.00	
DISSOLVED SOLIDS, SUM OF CONST	2	46.00	0.00	46.00	46.00	

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
IRON (FE), UG/L	2	20.00	80.00	2	20.00	80.00
MANGANESE (Mn), UG/L						

MINOR ELEMENTS:  
 IRON (FE) • UG/L  
 MANGANESE (Mn), UG/L

LAT 40 19'28" LONG 105 12'41"

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 06742500 NAME: CARTER LAKE NEAR BERTHOLD, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R <sup>2</sup>
TEMPERATURE, WATER (DEG C)	466	9.19	5.38	0.50	23.00			
SPECIFIC CONDUCTANCE (MICROMhos)	326	91.34	16.79	65.00	205.00			
OXYGEN, DISSOLVED	348	8.58	1.59	4.50	12.00			
pH (STANDARD UNITS)	228							
BICARBOONATE ION	2	49.00	1.41	48.00	50.00	2	0.09524	40.09524
NITRITE + NITRATE, DISSOLVED AS N	204	0.05	0.06	0.00	0.40			
ORTHOPHOSPHATE, DISSOLVED AS P	2	0.01	0.00	0.01	0.01	2	0.14286	26.14286
HARDNESS, TOTAL	2	39.50	2.12	38.00	41.00	2	0.04762	1.0000
CALCIUM, DISSOLVED	2	13.50	0.71	13.00	14.00	2	0.00000	1.40000
MAGNESIUM, DISSOLVED	2	1.40	0.00	1.40	1.40	2	0.00000	0.00000
SODIUM, DISSOLVED	2	2.35	0.07	2.30	2.40	2	0.00476	1.90476
POTASSIUM, DISSOLVED	2	0.85	0.07	0.80	0.90	2	-0.00476	1.29524
CHLORIDE, DISSOLVED	2	1.15	0.21	1.00	1.30	2	-0.01429	2.48572
SULFATE, DISSOLVED	2	4.65	0.07	4.60	4.70	2	0.00476	4.20476
SILICA, DISSOLVED	2	1.45	1.34	0.50	2.40	2	-0.09048	9.90953
DISSOLVED SOLIDS, ROE 180 DEG C	227	52.94	11.23	32.00	116.00	224	0.46543	12.70039
DISSOLVED SOLIDS, SUM OF CONST	2	50.00	0.00	50.00	50.00	2	0.00000	0.48444
TOTAL DISSOLVED								9.83920
								0.00000
								0.00000

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	DISSOLVED	
							CONC.	CONC.
MINOR ELEMENTS:								
IRON (FE), ug/l	2	20.00	20.00	2	20.00	20.00		
MANGANESE (Mn), ug/l	2	0.00	10.00	2	0.00	10.00		

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06744000

NAME: BIG THOMPSON RIVER AT MOUTH, NEAR LA SALLE, CO.

DRAINAGE AREA: 830.001 SQ MI (2149.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	155	10.96	7.30	0.00 - 26.00				
STREAMFLOW, MEAN DAILY, (CFS)	96	106.93	117.08	3.50 - 631.00				
STREAMFLOW (CUBIC FT/SEC)	61	195.13	110.28	4.40 - 784.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	150	1958.70	507.85	360.00 - 2880.00				
OXYGEN, DISSOLVED	95	8.80	1.49	6.00 - 11.30				
pH (STANDARD UNITS)	151			6.60 - 8.50				
BICARBONATE ION	116	331.57	87.00	10.00 - 512.00	115	0.14656	41.58483	0.8215
NITRITE + NITRATE, DISSOLVED AS N	98	2.42	1.06	0.30 - 6.00				
ORTHOPHOSPHATE, DISSOLVED AS P	97	0.22	0.16	0.03 - 0.78				
MATURITY, TOTAL	114	884.92	240.94	130.00 - 1270.00	113	0.47940	-60.51338	0.9713
CALCIUM, DISSOLVED	114	166.83	42.12	28.00 - 225.00	113	0.08200	5.06391	0.9516
MAGNESIUM, DISSOLVED	114	113.24	33.28	15.00 - 184.00	113	0.06590	-16.61430	0.9642
SODIUM, DISSOLVED	109	151.61	43.35	20.00 - 230.00	108	0.08720	-17.43061	0.9551
POTASSIUM, DISSOLVED	99	6.77	2.69	1.40 - 17.00	98	0.00365	-0.22338	0.6621
CHLORIDE, DISSOLVED	114	21.78	6.52	3.10 - 34.00	113	0.01125	-0.35486	0.5389
SULFATE, DISSOLVED	116	887.66	262.80	100.00 - 1460.00	115	0.52143	-143.015	0.9660
SILICA, DISSOLVED	114	9.42	1.80	5.00 - 11.00	113	0.00121	7.02209	0.3290
BORON, DISSOLVED, UG/L	19	372.11	175.81	0.18 - 610.00				
DISSOLVED SOLIDS, ROE 180 DEG C	19	1888.74	346.69	966.00 - 2320.00	19	0.86103	-7.78771	0.9659
DISSOLVED SOLIDS, SUM OF CONST	100	1489.39	418.89	2160.00 - 2160.00	99	0.83688	-124.608	0.9784

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.				
MINOR ELEMENTS:							
ARSENIC (AS), UG/L	1	2.00	2.00				
CADMIUM (CD), UG/L	1	0.00	0.00				
COPPER (CU), UG/L	1	2.00	2.00				
IRON (FE), UG/L	1	10.00	460.00				
LEAD (PB), UG/L	1	0.00	0.00				
MANGANESE (Mn), UG/L	92	20.00	440.00				
ZINC (Zn), UG/L	1	30.00	30.00				

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06747500 NAME: CACHE LA POUDE RIVER NEAR RUSTIC, CO.  
 LAT 40° 41' 44" LONG 105° 41' 23" DRAINAGE AREA: 199,001 SQ MI (515,413 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	STANDARD DEVIATION	RANGE					REGRESSION COEFFICIENT, A	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	70	5.29	4.86	0.00	15.00					
STREAMFLOW, MEAN DAILY (CFS)	1	18.00	18.00	18.00						
SPECIFIC CONDUCTANCE (MICROMhos)	63	62.83	19.52	26.00	100.00					
OXYGEN, DISSOLVED	43	9.74	1.22	7.40	11.60					
pH (STANDARD UNITS)	69			6.30	8.80					
BICARBONATE ION	47	30.66	9.59	14.00	44.00	47	47	0.45076	3.92074	0.9411
NITRITE + NITRATE, DISSOLVED AS N	47	0.05	0.05	0.00	0.21					
ORTHOPHOSPHATE, DISSOLVED AS P	47	0.01	0.01	0.00	0.05					
HARDNESS, TOTAL	47	23.21	6.16	12.00	33.00	47	47	0.27241	7.05337	0.8862
CALCIUM, DISSOLVED	47	6.53	1.50	3.60	8.90	47	47	0.06365	2.75395	0.8510
MAGNESIUM, DISSOLVED	47	1.69	0.64	0.60	2.90	47	47	0.02767	0.04610	0.88355
SODIUM, DISSOLVED	47	3.21	1.29	0.80	6.50	47	47	0.03538	1.10978	0.5507
POTASSIUM, DISSOLVED	46	1.01	0.36	0.40	2.50	46	46	0.01177	0.30433	0.6645
CHLORIDE, DISSOLVED	47	1.22	0.48	0.30	2.30	47	47	0.00854	0.71690	0.3529
SULFATE, DISSOLVED	47	4.09	1.05	2.50	7.80					
SILICA, DISSOLVED	47	10.25	2.28	6.00	14.00	47	47	0.08927	4.95115	0.7852
DISSOLVED SOLIDS, SUM OF CONST	46	43.85	10.44	25.00	61.00	46	46	0.46219	16.26731	0.8898

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.						
<b>MINOR ELEMENTS:</b>									
ARSENIC (AS), $\mu\text{g/L}$	1	0.00	0.00						
CADMIUM (CD), $\mu\text{g/L}$	1	0.00	0.00						
COPPER (CU), $\mu\text{g/L}$	1	10.00	10.00						
IRON (FE), $\mu\text{g/L}$	47	30.00	310.00						
LEAD (PB), $\mu\text{g/L}$	1	2.00	2.00						
MANGANESE (MN), $\mu\text{g/L}$	46	0.00	40.00						
MERCURY (HG), $\mu\text{g/L}$	1	0.00	0.00						
SELENIUM (SE), $\mu\text{g/L}$	1	7.00	7.00						
ZINC (ZN), $\mu\text{g/L}$	1	20.00	20.00						

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 067520000 NAME: CACHE LA Poudre R A MO OF CN, NR FT COLLINS, CO.  
 LAT 40 39'52" LONG 105 13'26" DRAINAGE AREA: 1055 SQ MI (2732.45 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R <sub>H</sub>	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	151	8.40	6.19	0.00	21.00	
STREAMFLOW, MEAN DAILY, (CFS)	91	365.92	537.52	11.00	2470.00	
STREAMFLOW (CUBIC FT/SEC)	52	329.31	542.63	7.00	2194.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	102	108.63	55.91	27.00	285.00	
OXYGEN, DISSOLVED	80	10.05	1.66	7.10	13.00	
P <sub>H</sub> (STANDARD UNITS)	107			6.10	8.50	
DICARBOONATE ION	83	53.87	31.12	13.00	147.00	
NITRITE + NITRATE, DISSOLVED AS N	83	0.08	0.08	0.00	0.41	
ORTHOPHOSPHATE, DISSOLVED AS P	83	0.01	0.02	0.00	0.11	
PARITY, TOTAL	81	43.36	24.08	12.00	110.00	
CALCIUM, DISSOLVED	82	12.28	6.53	3.60	31.00	
MAGNESIUM, DISSOLVED	81	3.11	1.88	0.60	9.10	
SODIUM, DISSOLVED	83	4.54	2.06	1.50	9.70	
POTASSIUM, DISSOLVED	82	1.05	0.29	0.50	1.80	
CHLORIDE, DISSOLVED	82	1.98	1.22	0.50	6.70	
SULFATE, DISSOLVED	82	5.94	2.15	3.00	14.00	
SILICA, DISSOLVED	83	9.74	1.80	6.50	14.00	
DISSOLVED SOLIDS, SUM OF CONST	79	66.10	30.29	20.00	146.00	
				79	0.48670	12.45354
						0.9740
						6.91242

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:

ARSENIC (AS), UG/L	2	0.00	1.00
CADMIUM (CD), UG/L	2	0.00	1.00
COPPER (CU), UG/L	2	3.00	5.00
IRON (FE), UG/L	83	0.00	240.00
LEAD (PB), UG/L	2	2.00	2.00
MANGANESE (MNI), UG/L	83	0.00	110.00
MERCURY (HG), UG/L	1	0.10	0.10
SELENIUM (SE), UG/L	1	0.00	0.00
ZINC (ZN), UG/L	2	10.00	20.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06752260 NAME: CACHE LA POUDRE RIVER AT FORT COLLINS, CO.  
 LAT 40° 35' 17" LONG 105° 04' 08" DRAINAGE AREA: 1127 SQ MI (2918.93 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R, CONSTANT B, CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	53	11.24	5.88	1.00 - 21.00		
STREAMFLOW (CUBIC FT/SEC)	42	58.94	143.90	1.50 - 685.00		
SPECIFIC CONDUCTANCE (MICROMhos)	43	439.42	239.83	45.00 - 750.00		
OXYGEN, DISSOLVED	233	9.66	2.04	4.90 - 14.50		
P <sub>4</sub> (STANDARD UNITS)	40			6.10 - 8.30		
BICARBONATE ION	39	183.95	95.63	20.00 - 299.00	39	0.39809 5.36985
NITRITE + NITRATE, DISSOLVED AS N	41	0.53	0.38	0.03 - 1.40		
ORTHOPHOSPHATE, DISSOLVED AS P	41	0.01	0.01	0.00 - 0.05		
HARDNESS, TOTAL	41	201.05	103.98	18.00 - 320.00	41	0.44354 -1.30120
CALCIUM, DISSOLVED	41	54.32	27.37	5.30 - 85.00	41	0.11676 0.04687
MAGNESIUM, DISSOLVED	41	15.77	8.63	1.20 - 25.00	41	0.03654 -0.90008
SODIUM, DISSOLVED	41	18.02	10.04	2.00 - 35.00	41	0.04108 -0.72324
POTASSIUM, DISSOLVED	41	2.55	1.07	0.70 - 3.90	41	0.00432 0.57962
CHLORIDE, DISSOLVED	41	8.95	5.60	0.70 - 21.00	41	0.02170 0.94620
SULFATE, DISSOLVED	41	68.85	39.45	4.70 - 120.00	41	0.16439 -6.15020
SILICA, DISSOLVED	41	8.26	1.73	5.80 - 12.00	41	0.00385 6.50314
BORON, DISSOLVED, ug/L	1	140.00		140.00		
DISSOLVED SOLIDS, SUM OF CONST	39	266.87	140.74	33.00 - 434.00	39	0.58983 2.28178
TOTAL DISSOLVED						0.9897 20.46043

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NU. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
				DISSOLVED	DISSOLVED	DISSOLVED
MINOR ELEMENTS!						
IRON (FE) ug/L	41	20.90	160.00			
MANGANESE (Mn) ug/L	40	0.00	200.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06752500 NAME: CACHE LA POUDRE RIVER NEAR GREELEY, CO.

LAT 40°25'04" LONG 104°38'22" DRAINAGE AREA: 1877 SQ MI (4861.43 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION				REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R	
TEMPERATURE, WATER (DEG C)	153	12.05	6.73	0.00	25.00					
STREAMFLOW, MEAN DAILY, (CFS)	126	153.31	290.12	6.40	1840.00					
STREAMFLOW (CUHIC FT/SEC)	62	115.05	257.69	8.20	2025.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	184	1671.68	358.60	277.00	2350.00					
OXYGEN, DISSOLVED	93	9.18	1.68	4.00	12.40					
P <sub>4</sub> (STANDARD UNITS)	183		6.50	8.70						
BICARBONATE ION, DISSOLVED AS N	149	347.38	113.36	63.00	1060.00	148	0.22346	-31.61007	0.6547	86.25378
NITRITE + NITRATE, DISSOLVED AS P	97	4.24	1.70	0.18	8.30					
ORTHOPHOSPHATE, DISSOLVED AS P	96	0.72	0.39	0.06	1.80					
MARINNESS, TOTAL	146	741.78	160.15	100.00	1050.00	145	0.46213	-40.30557	0.9621	43.98810
CALCIUM, DISSOLVED	146	162.37	33.96	25.00	210.00	145	0.09435	2.69028	0.9264	12.87235
MAGNESIUM, DISSOLVED	147	81.64	19.79	9.70	138.00	146	0.05391	-9.75790	0.9106	8.23324
SODIUM, DISSOLVED	142	121.93	30.36	14.00	201.00	141	0.08169	-19.19176	0.9273	11.44754
POTASSIUM, DISSOLVED	131	7.68	2.70	1.60	18.00	130	0.00448	0.15373	0.5759	2.22019
CHLORIDE, DISSOLVED	147	43.80	22.70	3.90	162.00	146	0.03712	-19.08164	0.5465	19.13571
SULFATE, DISSOLVED	149	637.52	156.20	65.00	964.00	148	0.40503	-49.16010	0.8611	79.96054
SILICA, DISSOLVED, UG/L	145	12.70	2.29	6.80	20.00	144	0.00214	9.06493	0.3139	2.18113
BORON, DISSOLVED, UG/L	54	290.01	85.21	0.29	480.00					
DISSOLVED SOLIDS, ROE 180 DEG C	53	1468.06	237.61	308.00	1840.00	53	0.84938	-83.02416	0.9375	83.50045
DISSOLVED SOLIDS, SUM OF CONST	108	1213.09	270.18	169.00	1590.00	107	0.78380	-80.24045	0.9793	55.12422

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 37

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	TOTAL NO. SAMPLES	MAXIMUM CONC.			NO. MINIMUM SAMPLES	MAXIMUM CONC.
		1%	5%	10%		
2010	1990	1990	1960	1890	1770	1730
					1720	1650

CONSTITUENT	TOTAL DISSOLVED			SAMPLE SIZE
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	

## MINOR ELEMENTS:

ARSENIC (AS) • UG/L  
 CADMIUM (CD) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (PB) • UG/L  
 MANGANESE (MN) • UG/L  
 ZINC (ZN) • UG/L

LAT 40 24°44" LONG 104 33°46" DRAINAGE AREA: 9598 SQ MI (24858.8 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 06754000 NAME: SOUTH PLATTE RIVER NEAR KERSEY, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, B	CORRELATION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	186	12.49	7.18	0.00	27.00			
STREAMFLOW, MEAN DAILY (CFS)	278	883.25	1524.29	44.00	10600.00			
STREAMFLOW (CUBIC FT/SEC)	63	617.47	720.29	70.00	5300.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	232	1466.58	376.26	411.00	2520.00			
OXYGEN, DISSOLVED	31	8.57	1.28	6.10	11.20			
pH (STANDARD UNITS)	208	288.54	79.20	7.00	8.70			
BICARBONATE ION	206	5.00	1.48	1.90	9.20			
NITRITE + NITRATE, DISSOLVED AS N	37	0.54	0.40	0.12	1.50			
ORTHOPHOSPHATE, DISSOLVED AS P	35	0.54	161.49	141.00	815.00			
HARDNESS, TOTAL	212	576.12	34.60	236.00	156	0.44074	-66.98299	0.9791
CALCIUM, DISSOLVED	160	135.44	16.61	14.00	100.00	0.10095	-17.35507	0.8913
MAGNESIUM, DISSOLVED	159	64.06	16.61	14.00	155	0.04802	-8.61081	0.8861
SODIUM, DISSOLVED	201	121.26	33.96	26.00	182.00	0.09044	-10.55815	0.9771
POTASSIUM, DISSOLVED	145	6.73	1.71	2.40	14.00	0.00322	1.86077	0.5906
CHLORIDE, DISSOLVED	204	45.42	17.75	8.00	141	0.0187	-0.21115	1.39114
SULFATE, DISSOLVED	209	518.87	156.46	110.00	201	0.41638	-87.64191	0.6526
SILICA, DISSOLVED, UG/L	153	13.57	2.76	5.80	27.00	0.00274	9.40084	0.9592
BORON, DISSOLVED, UG/L	109	233.83	106.31	0.99	560.00	0.00274	0.3038	4.86878
DISSOLVED SOLIDS, ROE 180 DEG C	166	1100.85	328.90	256.00	1560.00	166	0.84820	121.045
DISSOLVED SOLIDS, SUM OF CONST	98	1106.02	223.26	356.00	1470.00	98	0.78310	92.64668

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.						
MINOR ELEMENTS:									
ARSENIC (AS), UG/L	1	0.00	0.00						
CADMIUM (CD), UG/L	1	0.00	0.00						
COPPER (CU), UG/L	1	2.00	2.00						
IRON (FE), UG/L	51	0.00	90.00						
LEAD (PB), UG/L	1	0.00	0.00						
MANGANESE (MNI), UG/L	35	40.00	40.00						
ZINC (ZN), UG/L	1	10.00	47.65975						

LAT 40 18°21" LONG 104 14°40" DRAINAGE AREA: 12119 SQ MI (31388.2 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06756995 NAME: SOUTH PLATE RIVER AT MASTERS, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD DEVIATION	RANGE					REGRESSION COEFFICIENT, B	CONSTANT, A	CORRELATION COEFFICIENT, R	
TEMPERATURE, WATER (DEG C)	60	15.02	7.21	0.00	27.50						
STREAMFLOW, MEAN DAILY, (CFS)	1	0.40	0.40	0.40	0.40						
STREAMFLOW, (CUBIC FT/SEC)	25	259.24	182.44	4.94	730.00						
SPECIFIC CONDUCTANCE (MICROMhos)	60	1504.08	225.66	600.00	1750.00						
OXYGEN, DISSOLVED	32	8.72	1.22	7.00	11.60						
pH (STANDARD UNITS)	34		7.70	6.50	34.00		34	0.16951	37.23806	0.9025	16.33675
BICARBONATE ION	34	297.88	37.35	160.00	340.00						
NITRITE + NITRATE, DISSOLVED AS N	33	3.39	1.07	1.40	5.90						
ORTHOPHOSPHATE, DISSOLVED AS P	34	0.31	0.26	0.02	1.20						
MARINENESS, TOTAL	34	594.71	78.63	300.00	730.00		34	0.34711	60.98012	0.8778	38.24935
CALCIUM, DISSOLVED	34	137.06	18.79	71.00	180.00		34	0.08317	9.17633	0.8803	9.05074
MAGNESIUM, DISSOLVED	34	61.24	8.87	29.00	72.00		34	0.03667	7.93202	0.7775	5.66205
SODIUM, DISSOLVED	34	137.32	19.24	59.00	160.00		34	0.08610	4.93869	0.8898	8.91642
POTASSIUM, DISSOLVED	34	7.14	0.78	4.10	8.90		34	0.02023	4.01726	0.5187	0.67629
CALORIDE, DISSOLVED	34	59.44	10.95	26.00	80.00		34	0.04338	-8.19830	0.8060	6.58158
SULFATE, DISSOLVED	34	528.53	76.48	240.00	650.00		34	0.31516	4.303016	0.8195	4.51410
SILICA, DISSOLVED	33	12.65	1.81	8.60	16.00		33	0.64894	106.28519	0.9129	58.89670
DISSOLVED SOLIDS, SUM OF CONST	33	1100.94	142.05	527.00	1250.00		33				

CONSTITUENT	TOTAL			DISSOLVED			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	STANDARD ERROR OF ESTIMATE
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.				
IRON (FE) • UG/L	33	0.00	290.00							
MANGANESE (Mn) • UG/L	34	10.00	200.00							

MINOR ELEMENTS:  
IRON (FE) • UG/L  
MANGANESE (Mn) • UG/L

LAT 40° 19' 19" LONG 103° 55' 17"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06758500

NAME: SOUTH PLATTE RIVER NEAR WELDONA, CO.

DRAINAGE AREA: 13245 SQ MI (34304.5 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	MEAN	STANDARD DEVIATION	RANGE					REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, R <sub>B</sub>
TEMPERATURE, WATER (DEG C)	24.6	16.20	8.06	0.00	29.50					
STREAMFLOW, MEAN DAILY (CFS)	69	877.61	1804.58	105.00	11000.00					
STREAMFLOW (CUMIC FT/SEC)	209	341.50	318.11	43.00	2140.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	132	1749.19	318.25	598.00	2870.00					
OXYGEN, DISSOLVED	68	9.62	1.34	6.50	13.40					
P <sub>H</sub> (STANDARD UNITS)	130	310.48	47.14	123.00	440.00	106	8.70	0.11615	104.68247	0.7699
BICARBONATE ION	106	3.90	1.38	0.32	8.80					
NITRITE + NITRATE, DISSOLVED AS N	92	0.40	0.50	0.01	3.10					
ORTHOPHOSPHATE, DISSOLVED AS P	93	91.59	146.53	200.00	1300.00	105	0.43477	-78.98629	0.9314	53.61209
HARDNESS, TOTAL	105	691.59	33.87	52.00	285.00	106	0.09567	-9.20734	0.8826	16.00214
CALCIUM, DISSOLVED	106	160.31	17.35	17.00	150.00	105	0.04766	-13.71499	0.8622	8.8348
MAGNESIUM, DISSOLVED	105	70.76	31.60	45.00	291.00	106	0.09304	-0.91274	0.9198	12.46098
SODIUM, DISSOLVED	106	163.93	8.30	1.26	4.50	94	0.00283	3.32994	0.6771	0.93359
POTASSIUM, DISSOLVED	94	68.34	10.39	24.00	92.00	106	0.02537	23.38036	0.7633	6.74163
CHLORIDE, DISSOLVED	106	656.44	163.38	150.00	1400.00	106	0.47970	-193.525	0.9174	65.34229
SULFATE, DISSOLVED	106	15.85	3.97	7.70	30.00	106	0.00475	0.35472	0.6891	2.88783
SILICA, DISSOLVED	11	1495.45	428.66	1090.00	2620.00	11	1.09050	-513.048	0.9928	54.14062
DISSOLVED SOLIDS, ROE 180 DEG C	94	1307.82	258.89	375.00	2240.00	94	0.78376	-69.82250	0.9152	104.92396
DISSOLVED SOLIDS, SUM OF CONST										

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

## MINOR ELEMENTS:

IRON (FE) • UG/L  
MANGANESE (MN) • UG/L9.3            0.00            260.00  
9.3            0.00            160.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06759100 NAME: BIJUU CREEK NEAR FT. MORGAN, CO.  
 LAT 40 16°58' LONG 103 52°30' DRAINAGE AREA: 15000 SQ MI (38850 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	Coefficient R	CONSTANT B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	59	15.31	3.59	5.00	21	.50		
STREAMFLOW (CUBIC FT/SEC)	24	13.06	11.92	4.40	55	.00		
SPECIFIC CONDUCTANCE (MICROMhos)	59	1661.19	133.65	1250.00	2150.00			
OXYGEN, DISSOLVED	33	6.82	1.51	3.50	10.00			
P <sub>4</sub> (STANDARD UNITS)	34	315.62	8.81	300.00	340.00	.34	0.03858	250.24416
BICARBONATE, DISSOLVED AS N	33	7.76	1.43	4.00	11.00			
NITRITE + NITRATE, DISSOLVED AS P	34	0.05	0.06	0.00	0.38			
ORTHOPHOSPHATE, DISSOLVED AS P	34	0.05	0.06	0.00	0.38			
HARDNESS, TOTAL	34	681.18	42.12	620.00	890.00	.34	0.20900	327.03917
CALCIUM, DISSOLVED	34	204.41	8.24	180.00	220.00			
MAGNESIUM, DISSOLVED	34	41.29	8.98	28.00	88.00	.34	0.04412	-33.5973
SODIUM, DISSOLVED	34	144.12	12.82	130.00	210.00	.34	0.05184	56.27876
POTASSIUM, DISSOLVED	34	9.69	0.39	8.90	11.00			
CHLORIDE, DISSOLVED	34	55.68	7.63	23.00	78.00			
SULFATE, DISSOLVED	34	603.53	50.26	560.00	860.00	.34	0.25106	178.13711
SILICA, DISSOLVED	33	21.42	1.84	16.00	23.00			
DISSOLVED SOLIDS, SUM OF CONST	33	1269.70	76.46	1190.00	1660.00	.33	0.39260	604.53656

CONSTITUENT	TOTAL			DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
MINOR ELEMENTS:							
IRON (FE) • UG/L	34	0.00	80.00				
MANGANESE (Mn) • UG/L	34	60.00	450.00				

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 06760000 NAME: SOUTH PLATTE RIVER AT BALZAC, CO.  
 LAT 40° 24' 24" LONG 103° 27' 58" DRAINAGE AREA: 16852 SQ MI (43646.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	58	13.57	7.82	0.00 - 25.00				
STREAMFLOW, MEAN DAILY. (CFS)	105	598.99	2214.09	6.80 - 15900.00				
STREAMFLOW (CUBIC FT/SEC.)	2	497.50	236.88	320.00 - 655.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	119	1721.53	246.78	640.00 - 2020.00				
OXYGEN, DISSOLVED	2	8.40	0.85	7.80 - 9.00				
pH (STANDARD UNITS)	117	7.20	0.60					
BICARBONATE ION	116	287.23	44.78	153.00 - 350.00	116	0.12879	64.38674	0.6570
NITRITE + NITRATE, DISSOLVED AS N	1	3.50	3.50					
HARDNESS, TOTAL	116	691.11	106.57	281.00 - 840.00	116	0.45407	-94.59062	0.9733
CALCIUM, DISSOLVED	111	171.57	30.00	64.00 - 223.00	111	0.11239	-23.38108	0.8575
MAGNESIUM, DISSOLVED	111	64.52	12.46	26.00 - 90.00	111	0.04178	-7.94043	0.7675
SODIUM, DISSOLVED	100	151.94	24.11	56.00 - 186.00	100	0.09557	-13.52561	0.9637
POTASSIUM, DISSOLVED	94	8.83	1.48	4.00 - 13.00	94	0.00391	2.03586	0.6493
CHLORIDE, DISSOLVED	115	57.60	8.79	29.00 - 74.00	115	0.02613	12.40325	0.6815
SULFATE, DISSOLVED	115	692.06	124.04	211.00 - 850.00	115	0.51854	-204.709	0.9581
SILICA, DISSOLVED	111	14.12	3.21	2.40 - 27.00				
BORON, DISSOLVED, ug/l	111	223.22	97.37	0.00 - 430.00				
DISSOLVED SOLIDS, ROE 180 DEG C	111	1368.09	207.23	548.00 - 1590.00	111	0.89421	-182.933	0.9875
DISSOLVED SOLIDS, SUM OF CONST	62	1274.79	234.33	508.00 - 1560.00	62	0.86487	-191.75	0.9920

CONSTITUENT	DISSOLVED			
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES
IRON (FE), ug/l	8	0.00	250.00	

MINOR ELEMENTS:  
 IRON (FE), ug/l

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06764000 NAME: SOUTH PLATE RIVER AT JULESBURG, CO.

LAT 40 58'46" LONG 102 15'15" DRAINAGE AREA: 23138 SQ MI (59927.4 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	M	S	N					REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, R	
TEMPERATURE, WATER (DEG C)	177	15.43	6.51	0.00	32.50						
STREAMFLOW, MEAN DAILY, (CFS)	374	608.33	1404.43	9.50	17200.00						
STREAMFLOW (CUBIC FT/SEC)	41	199.22	191.74	15.00	679.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	406	1745.96	316.53	617.00	2500.00						
OXYGEN, DISSOLVED	186	8.70	1.76	6.50	13.00						
PH (STANDARD UNITS)	348			8.00							
BICARBONATE ION	340	276.63	50.81	142.00	440.00			0.111753	71.06441	0.7440	33.88255
ORTHOPHOSPHATE, DISSOLVED AS P	1	0.07	0.07	0.07	0.07						
MARINESS, TOTAL	402	645.45	126.70	202.00	880.00			0.39318	-41.29960	0.9688	31.58257
CALCIUM, DISSOLVED	157	180.73	34.18	64.00	249.00			0.10026	-0.66114	0.9047	14.60847
MAGNESIUM, DISSOLVED	156	53.78	11.38	13.00	75.00			0.03150	-3.14810	0.8534	5.95235
SODIUM, DISSOLVED	395	162.51	35.44	5.40	279.00			0.10510	-20.87689	0.9587	9.89282
POTASSIUM, DISSOLVED	155	15.75	3.70	5.60	26.00			0.00639	4.20212	0.5356	3.13248
CHLORIDE, DISSOLVED	178	68.01	18.01	0.40	110.00			0.04637	-14.69625	0.4387	9.46232
SULFATE, DISSOLVED	179	681.90	149.08	9.50	980.00			0.42671	-79.58975	0.9501	43.99710
SILICA, DISSOLVED	156	25.65	7.22	9.80	49.00			0.00478	17.00504	0.2047	7.09427
BORON, DISSOLVED, UG/L	86	250.12	63.09	100.00	560.00						
DISSOLVED SOLIDS, ROE 180 DEG C	389	1356.04	271.41	429.00	1860.00			0.83618	-104.644	0.9774	57.47859
DISSOLVED SOLIDS, SUM OF CONST	120	1400.62	201.11	469.00	1860.00			0.73181	31.00835	0.9244	77.05217

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C. THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

TOTAL NO. MINIMUM MAXIMUM NO. SAMPLES SAMPLES CONC. CONC.

CONSTITUENT	TOTAL			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	SAMPLE SIZE = 10741
	CONC.	CONC.	CONC.				
DISSOLVED							

MINOR ELEMENTS:  
 ARSENIC (AS) • UG/L  
 CADMIUM(CD) • UG/L  
 CHROMIUM (CR) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (Pb) • UG/L  
 MANGANESE (Mn) • UG/L  
 MERCURY (HG) • UG/L  
 SELENIUM (SE) • UG/L  
 ZINC (Zn) • UG/L

LAT 41 00'59" LONG 102 10'34"

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 06764200 NAME: SOUTH PLATTE RIVER NEAR JULESBURG, COLO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY					
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H CONSTANT, B CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	40	10.17	.8.88	0.00	29.00	
STREAMFLOW, MEAN DAILY, (CFS)	50	824.50	1193.21	20.00	7120.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	48	1757.23	274.30	897.00	2160.00	
P-4 (STANDARD UNITS)	32			7.30	8.40	
BICARBONATE, TON	32	278.87	47.81	181.00	358.00	32
NITRITE + NITRATE, DISSOLVED AS N	25	1.85	1.16	0.01	4.70	
HARDNESS, TOTAL	40	652.15	101.67	340.00	770.00	40
CALCIUM, DISSOLVED	37	173.22	27.83	100.00	210.00	37
MAGNESIUM, DISSOLVED	37	54.38	7.03	31.00	68.00	37
SODIUM, DISSOLVED	21	175.81	20.06	14.00	208.00	21
POTASSIUM, DISSOLVED	22	15.93	3.25	9.40	24.00	22
CHLORIDE, DISSOLVED	40	70.65	12.30	30.00	88.00	40
SULFATE, DISSOLVED	40	657.05	118.14	283.00	810.00	40
SILICA, DISSOLVED	20	23.00	5.07	13.00	32.00	20
BORON, DISSOLVED, UG/L	21	279.81	47.88	219.00	447.00	
DISSOLVED SOLIDS, ROE 180 DEG C	35	1381.26	229.35	672.00	1670.00	35
DISSOLVED SOLIDS, SUM OF CONST	19	13666.32	145.42	1050.00	1550.00	19
<hr/>						
<hr/>						
TOTAL DISOLVED						
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:

IRON (FE), UG/L  
MANGANESE (MN), UG/L

21 10.00 340.00  
17 10.00 180.00

LAT 39 16'29" LONG 106 17'15"

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 07079200 NAME: LEADVILLE DRAIN AT LEADVILLE, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY			CORRELATION COEFFICIENT, R	STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION		
TEMPERATURE, WATER (DEG C)	30	6.92	0.52	6.00	8.00
STREAMFLOW, MEAN DAILY (CFS)	21	3.12	0.35	2.50	3.60
STREAMFLOW (CUBIC FT/SEC)	11	2.63	1.01	0.50	3.60
SPECIFIC CONDUCTANCE (MICROMhos)	37	819.46	92.59	559.00	980.00
OXYGEN, DISSOLVED	1	5.90	.	5.90	5.90
PH (STANDARD UNITS)	37	.	6.50	7.60	
BICARBOATE ION	35	139.77	14.77	105.00	171.00
NITRITE + NITRATE, DISSOLVED AS N	1	0.48	.	0.48	0.48
ORTHOPHOSPHATE, DISSOLVED AS P	1	0.00	0.00	0.00	0.00
MAGNESIUM, TOTAL	32	454.56	61.56	290.00	570.00
CALCIUM, DISSOLVED	32	102.25	15.17	55.00	124.00
MAGNESIUM, DISSOLVED	32	48.47	7.40	36.00	67.00
SODIUM, DISSOLVED	29	4.05	0.77	2.40	6.20
POTASSIUM, DISSOLVED	29	1.35	0.33	0.50	1.80
CHLORIDE, DISSOLVED	29	2.49	1.10	0.17	4.00
SULFATE, DISSOLVED	30	342.83	64.67	188.00	464.00
SILICA, DISSOLVED	30	9.64	0.58	8.70	11.00
BORON, DISSOLVED, UG/L	28	20.72	34.95	0.00	17.00
DISSOLVED SOLIDS, ROE 180 DEG C	28	617.14	91.14	389.00	768.00
DISSOLVED SOLIDS, SUM OF CONST	29	592.10	92.01	363.00	756.00

CONSTITUENT	DISSOLVED			NO. SAMPLES	NO. MINIMUM	MAXIMUM	NO. MINIMUM CONC.	MAXIMUM CONC.
	TOTAL	MINIMUM	MAXIMUM					
MINOR ELEMENTS:								
ARSENIC (AS), ug/l								
CADMIUM (CD), ug/l								
CHROMIUM (CR), ug/l								
COPPER (CU), ug/l								
IRON (FE), ug/l								
LEAD (PB), ug/l								
MANGANESE (MN), ug/l								
MERCURY (HG), ug/l								
SELENIUM (SE), ug/l								
ZINC (ZN), ug/l								

MINOR ELEMENTS:  
 ARSENIC (AS), ug/l  
 CADMIUM (CD), ug/l  
 CHROMIUM (CR), ug/l  
 COPPER (CU), ug/l  
 IRON (FE), ug/l  
 LEAD (PB), ug/l  
 MANGANESE (MN), ug/l  
 MERCURY (HG), ug/l  
 SELENIUM (SE), ug/l  
 ZINC (ZN), ug/l

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 07081200 NAME: ARKANSAS RIVER NEAR LEADVILLE, CO.  
 LAT 39 15'26" LONG 106 20'35" DRAINAGE AREA: 97.201 SQ MI (251.751 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY					
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	59	4.24	4.63	0.00	15.00		
STREAMFLOW, MEAN DAILY, (CFS)	21	90.67	140.24	11.00	540.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	61	223.13	92.44	75.00	500.00		
P+ (STANDARD UNITS)	21			7.00	7.80		
BICARBONATE, ION	21	75.90	26.30	20.00	110.00	21	0.27905
MARONESS, TOTAL	21	109.57	46.00	35.00	172.00	21	0.51938
CALCIUM, DISSOLVED	21	25.34	11.28	8.30	40.00	21	-5.75595
MAGNESIUM, DISSOLVED	21	11.30	4.72	3.60	16.00	21	-0.12396
SODIUM, DISSOLVED	21	2.31	0.59	1.10	3.00	21	0.05164
POTASSIUM, DISSOLVED	21	1.01	0.68	0.50	4.40	21	0.00545
CALCIUM, DISSOLVED	21	1.79	0.51	1.20	2.80		
SULFATE, DISSOLVED	21	49.10	26.80	11.00	98.00	21	0.29098
SILICA, DISSOLVED	21	6.77	1.37	4.40	8.50	21	-0.01178
BORON, DISSOLVED, ug/l	21	33.33	28.69	0.00	90.00		
DISSOLVED SILIUS, ROE 180 DEG C	20	140.35	56.43	58.00	223.00	20	0.62320
DISSOLVED SILIUS, SUM OF CONST	21	137.10	55.82	48.00	216.00	21	0.62074
							-0.73373
							0.9964
							4.82910

CONSTITUENT	DISSOLVED			
	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:  
 ZINC (Zn), ug/l

18 110.00 980.00

**STATISTICAL SUMMARY OF WATER QUALITY DATA**

STATION NUMBER: 070830000 NAME: HALFMON CREEK NEAR MALTA, CO.  
 LAT 39 10'20" LONG 106 23'19" DRAINAGE AREA: 23.601 SQ MI (61.1265 SQ KM)

**STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE**

CONSTITUENT	REGRESSION CONCENTRATION (MG/L OR UNIT SHOWN)						REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	205	4.34	4.30	0.00	15.00				
STREAMFLOW, MEAN DAILY, (CFS)	154	28.26	36.44	2.60	196.00				
STREAMFLOW (CUBIC FT/SEC)	67	27.17	39.86	1.53	176.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	176	81.91	17.59	43.00	120.00				
OXYGEN, DISSOLVED	84	8.96	0.96	7.00	10.40				
P <sub>1</sub> (STANDARD UNITS)	173			5.70	8.90				
BICARBONATE ION	140	44.03	9.70	19.00	60.00	1.37	0.50887	2.17777	0.8781
NITRITE + NITRATE, DISSOLVED AS N	87	0.13	0.06	0.03	0.33				
ORTHOPHOSPHATE, DISSOLVED AS P	84	0.01	0.01	0.00	0.06				
HARDNESS, TOTAL	144	38.32	8.25	19.00	52.00	1.39	0.43190	3.33317	0.9117
CALCIUM, DISSOLVED	144	9.37	2.10	0.00	14.00	1.39	0.10210	1.09035	0.8415
MAGNESIUM, DISSOLVED	145	3.62	1.01	1.20	6.80	1.40	0.04119	0.29419	0.7095
SODIUM, DISSOLVED	140	1.48	0.48	0.60	3.00	1.39	0.01886	-0.06402	0.6778
POTASSIUM, DISSOLVED	140	0.65	0.31	0.10	3.40	1.39	0.00544	0.20695	0.3040
CHLORIDE, DISSOLVED	143	0.80	0.51	0.00	2.50				
SULFATE, DISSOLVED	142	5.35	1.60	1.00	10.00	1.39	0.05438	0.93050	0.5939
SILICA, DISSOLVED	142	5.32	1.43	1.20	9.70	1.40	0.06524	-0.00413	0.7843
BORON, DISSOLVED, UG/L	59	13.07	16.27	0.00	70.00				
DISSOLVED SOLIDS, ROE 180 DEG C	60	46.90	12.73	20.00	76.00	58	0.54285	4.57267	0.7654
DISSOLVED SOLIDS, SUM OF CONST	122	48.91	10.62	26.00	64.00	121	0.56334	3.19209	0.9389

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L	4	0.00	6.00			
CADMIUM(CD), UG/L	4	0.00	2.00			
CHROMIUM (CR), UG/L	1	0.00	0.00			
COPPER (CU), UG/L	3	2.00	3.00			
IRON (FE), UG/L	87	0.00	110.00			
LEAD (PB), UG/L	4	0.00	3.00			
MANGANESE (MN), UG/L	85	0.00	90.00			
MERCURY (HG), UG/L	4	0.20	0.20			
SELENIUM (SE), UG/L	3	0.00	1.00			
ZINC (ZN), UG/L	14	0.00	90.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 07083700 NAME: ARKANSAS RIVER NEAR MALTA, CO.  
 LAT 39°10'08" LONG 106°19'25" DRAINAGE AREA: 228.001 SQ MI (590.523 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	50	6.73	5.34	0.00	1750			
STREAMFLOW, MEAN DAILY, (CFS)	12	207.00	248.61	48.00	811.00			
STREAMFLOW (CUBIC FT/SEC)	17	230.29	430.47	3.60	1690.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	63	205.93	162.06	70.00	942.00			
OXYGEN, DISSOLVED	12	8.95	0.85	7.90	10.70			
PH (STANDARD UNITS)	35			5.50	8.20			
BICARBONATE ION	36	58.28	19.84	17.00	87.00			
NITRITE + NITRATE, DISSOLVED AS N	14	0.18	0.10	0.05	0.38			
ORTHOPHOSPHATE, DISSOLVED AS P	14	0.02	0.02	0.00	0.05			
HARDNESS, TOTAL	36	113.89	96.50	39.00	478.00	31	0.49603	-10.04542
CALCIUM, DISSOLVED	36	26.71	20.11	9.50	95.00	31	0.10299	0.99830
MAGNESIUM, DISSOLVED	36	11.39	11.38	3.60	58.00	31	0.05795	-3.10707
SODIUM, DISSOLVED	31	5.05	3.77	1.60	21.00	31	0.01667	0.64565
POTASSIUM, DISSOLVED	30	1.35	1.07	0.50	4.70	30	0.05054	0.1892
CHLORIDE, DISSOLVED	31	2.91	1.94	0.80	9.30	31	0.00853	0.65047
SULFATE, DISSOLVED	31	77.45	108.37	14.00	463.00	31	0.52004	-60.10622
SILICA, DISSOLVED	33	8.23	2.28	4.50	14.00	31	0.00867	5.96598
BORON, DISSOLVED, UG/L	17	19.44	19.49	0.00	60.00			
DISSOLVED SOLIDS, ROE 180 DEG C	17	227.06	197.04	80.00	700.00	17	0.76502	-26.34328
DISSOLVED SOLIDS, SUM OF CONST	18	198.61	190.37	55.00	663.00	18	0.73154	-27.88215

CONSTITUENT	TOTAL			DISSOLVED			MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
MINOR ELEMENTS:								
ARSENIC (AS) • UG/L	18	0.00	20.00					
CADMIUM (CD) • UG/L	19	0.00	3.00					
COPPER (CU) • UG/L	7	0.00	21.00					
IRON (FE) • UG/L	22	20.00	730.00					
LEAD (PB) • UG/L	20	0.00	8.00					
MANGANESE (MN) • UG/L	23	100.00	700.00					
MERCURY (HG) • UG/L	1	1.10	1.10					
SELENIUM (SE) • UG/L	18	0.00	30.00					
ZINC (ZN) • UG/L	11	16.00	870.00					

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07086000      NAME: ARKANSAS RIVER AT GRANITE, CO.

LAT 39° 02' 34" LONG 106° 15' 55" DRAINAGE AREA: 427.001 SQ MI (1105.93 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	STANDARD	DEVIATION					REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	34	7.57	4.99	0.00	16.00					
STREAMFLOW, MEAN DAILY, (CFS)	21	400.57	551.68	70.00	2260.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	21	164.05	45.27	85.00	226.00					
P <sub>H</sub> (STANDARD UNITS)	21			7.10	7.60					
BICARBONATE ION	21	60.48	17.28	26.00	86.00			0.36978	-0.18587	
HARDNESS, TOTAL	21	74.52	20.98	38.00	108.00			0.45753	-0.53286	
CALCIUM, DISSOLVED	21	18.19	5.51	10.00	28.00			0.11667	-0.14956	
MAGNESIUM, DISSOLVED	21	7.03	2.19	2.90	10.00			0.03994	0.47607	
SODIUM, DISSOLVED	21	3.57	1.20	1.60	5.30			0.02548	-0.61299	
POTASSIUM, DISSOLVED	21	0.97	0.43	0.40	2.50			0.00531	0.09533	
CHLORIDE, DISSOLVED	21	2.30	0.77	0.80	3.50			0.01423	-0.02989	
SULFATE, DISSOLVED	21	28.90	8.87	14.00	43.00			0.18528	-1.48959	
SILICA, DISSOLVED	21	7.35	1.57	4.80	9.80			0.03881	1.00524	
BORON, DISSOLVED, UG/L	21	31.43	23.93	0.00	100.00					
DISSOLVED SOLIUS, ROE 180 DEG C	21	103.86	28.93	58.00	145.00			0.62138	1.92118	
DISSOLVED SOLIUS, SUM OF CONST	21	99.62	27.91	51.00	140.00			0.61429	-1.15334	

CONSTITUENT	TOTAL			DISSOLVED		
	No. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	No. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
ZINC (Zn), UG/L	19	170.00	420000.00			

MINOR ELEMENTS:  
 ZINC (Zn), UG/L

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07096000 NAME: ARKANSAS RIVER AT CANON CITY, CO.

LAT 38° 26' 02" LONG 105° 15' 24" DRAINAGE AREA: 3117 SQ MI (8073.03 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SAMPLE SIZE			REGRESSION SAMPLE SIZE			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	RANGE	N	Coefficient H	CONSTANT	CORRELATION COEFFICIENT H	REGRESSION COEFFICIENT H	STANDARD ERROR OF ESTIMATE	
TEMPERATURE, WATER (DEG C)	200	9.35	6.61	0.00	21.00							
STREAMFLOW, MEAN DAILY (CFS)	187	679.21	676.33	145.00	4900.00							
STREAMFLOW (CUBIC FT/SEC)	39	681.54	721.79	184.00	3600.00							
SPECIFIC CONDUCTANCE (MICROMHOS)	159	272.13	70.85	120.00	544.00							
OXYGEN, DISSOLVED	55	9.66	1.64	7.20	12.50							
P-H (STANDARD UNITS)	152	126.80	34.41	6.60	89.90	128	0.46122	-0.23218	0.9613	9.51279		
BICARBONATE, DISSOLVED AS N	70	0.16	0.12	0.00	0.60							
NITRITE + NITRATE, DISSOLVED AS N	70	0.02	0.02	0.00	0.09							
ORTHOPHOSPHATE, DISSOLVED AS P	70	0.02	0.02	0.00	0.09							
MARSHNESS, TOTAL	128	120.45	32.80	50.00	269.00	128	0.43982	-0.69188	0.9617	9.02831		
CALCIUM, DISSOLVED	107	33.17	8.06	15.00	45.00	107	0.11353	2.59511	0.9637	2.16272		
MAGNESIUM, DISSOLVED	107	8.46	2.89	3.10	22.00	107	0.03554	-1.11057	0.8405	1.57428		
SODIUM, DISSOLVED	107	10.81	3.82	3.70	18.00	107	0.05411	-3.76694	0.9683	0.95862		
POTASSIUM, DISSOLVED	93	1.78	0.52	0.70	3.40	93	0.0593	0.19606	0.7813	0.32854		
CHLORINE, DISSOLVED	127	6.57	2.92	1.60	15.00	127	0.0190	-2.20581	0.7857	1.81346		
SULFATE, DISSOLVED	128	31.19	11.51	5.60	126.00	128	0.2698	-3.08135	0.7914	7.06273		
SILICA, DISSOLVED	106	10.89	2.42	6.40	15.00	106	0.02993	2.84389	0.8480	1.29060		
BORON, DISSOLVED, UG/L	32	27.81	22.96	0.00	80.00							
DISSOLVED SOLIDS, ROE 180 DEG C	80	179.48	46.50	86.00	364.00	60	0.62080	0.16472	11.15243			
DISSOLVED SOLIDS, SUM OF CONST	71	160.58	43.70	75.00	220.00	71	0.62219	-5.00496	0.9713	7.30411		

CONSTITUENT	TOTAL DISOLVED			NO. MINIMUM SAMPLES			MAXIMUM CONC.		
	(NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.			
MINOR ELEMENTS:									
IRON (FE), UG/L	59	0.00	230.00						
MANGANESE (MN), UG/L	60	0.00	92.00						

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07097000 NAME: ARKANSAS RIVER AT PORTLAND, CO.  
 LAT 38°23'18" LONG 105°00'56" DRAINAGE AREA: 4024 SQ MI (10422.2 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R, CONSTANT B, CORRELATION COEFFICIENT R <sup>2</sup> , STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	36	13.85	5.45	1.50 - 22.00		
STREAMFLOW (CUBIC FT/SEC)	59	526.49	683.91	100.00 - 3670.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	20	504.0	172.04	16.00 - 900.00		
OXYGEN, DISSOLVED	20	9.55	2.21	6.30 - 13.80		
pH (STANDARD UNITS)	20			7.10 - 9.00		
BICARBONATE ION	20	145.10	42.59	57.00 - 210.00	20	0.22656 30.75683 0.9152 17.63890
NITRITE + NITRATE, DISSOLVED AS N	20	0.31	0.16	0.09 - 0.69		
ORTHOPHOSPHATE, DISSOLVED AS P	20	0.05	0.05	0.00 - 0.25		
HARNESS, TOTAL	20	205.40	66.83	71.00 - 330.00	20	0.38319 12.00259 0.9864 11.29286
CALCIUM, DISSOLVED	20	54.25	16.73	20.00 - 82.00	20	0.09492 6.34141 0.9761 3.73206
MAGNESIUM, DISSOLVED	20	16.86	6.30	5.10 - 29.00	20	0.03595 -1.28538 0.9819 1.262693
SODIUM, DISSOLVED	20	25.36	10.12	5.00 - 42.00	20	0.05690 -3.36336 0.9674 6.33319
POTASSIUM, DISSOLVED	20	2.52	0.86	0.80 - 3.80	20	0.00379 0.7623 0.9882
CHLORIDE, DISSOLVED	20	9.73	4.19	2.60 - 16.00	20	0.02218 -1.47537 0.9110 1.77537
SULFATE, DISSOLVED	20	119.85	47.34	27.00 - 210.00	20	0.26545 -14.12486 0.9646 12.82162
SILICA, DISSOLVED	20	10.64	2.30	7.10 - 15.00		
DISSOLVED SOLIDS, SUM OF CONST	20	314.65	106.65	96.00 - 500.00	20	0.60666 8.46937 0.9786 22.56116

CONSTITUENT	TOTAL DISSOLVED			MINIMUM MAXIMUM NO. SAMPLES NO. MINIMUM MAXIMUM CONC. CONC.		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	SAMPLES	CONC.	CONC.
MINOR ELEMENTS: IRON (FE) + UG/L MANGANESE (MN), UG/L	20	10.00	10.00	20	10.00	150.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07099200 NAME: ARKANSAS RIVER NEAR PORTLAND, CO.  
 LAT 38 20'14" LONG 104 56'18" DRAINAGE AREA: 4280 SQ MI (11085.2 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	365	11.68	7.00	0.00	24.50	
STREAMFLOW, MEAN DAILY (CFS)	327	784.36	776.97	105.00	4820.00	
STREAMFLOW (CUBIC FT/SEC)	64	571.96	650.44	106.00	3680.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	201	508.28	170.84	180.00	950.00	
OXYGEN, DISSOLVED	85	9.70	2.09	5.90	13.80	
pH (STANDARD UNITS)	195			6.90	9.00	
BICARBONATE ION	169	150.08	39.60	60.00	212.00	168
NITRITE + NITRATE, DISSOLVED AS N	91	0.30	0.21	0.00	1.10	
DRTHOPHOSPHATE, DISSOLVED AS P	90	0.04	0.04	0.00	0.25	
MARINESS, TOTAL	169	222.09	75.71	76.00	430.00	168
CALCIUM, DISSOLVED	169	58.91	18.85	21.00	110.00	168
MAGNESIUM, DISSOLVED	169	18.30	7.26	5.10	38.00	168
SODIUM, DISSOLVED	169	24.50	10.06	5.70	52.00	168
POTASSIUM, DISSOLVED	164	2.44	0.69	1.10	4.50	163
CHLORIDE, DISSOLVED	169	8.63	3.69	1.30	18.00	168
SULFATE, DISSOLVED	169	137.33	61.10	30.00	320.00	168
SILICA, DISSOLVED	167	10.92	2.12	6.40	166	166
BORDN, DISSOLVED, UG/L	84	50.20	40.42	0.00	250.00	
DISSOLVED SOLIDS, ROE 180 DEG C	75	362.12	126.15	126.00	627.00	75
DISSOLVED SOLIDS, SUM OF CONST	129	331.69	122.67	107.00	642.00	128

CONSTITUENT	TOTAL DISSOLVED			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
CADMIUM (CD), UG/L	2	0.00	0.00			
IRON (FE), UG/L	82	0.00	210.00			
MANGANESE (MNI), UG/L	81	0.00	120.00			
SELENIUM (SE), UG/L	2	2.00	3.00			
ZINC (ZN), UG/L	3	6000.00	9600.00			

LAT 38 16°17" LONG 104 43'06"  
 STATION NUMBER: 07099400  
 DRAINAGE AREA: 4670 SQ MI (12095.3 SQ KM)  
 NAME: ARKANSAS RIVER ABOVE PUEBLO, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
		MEAN						R	Coefficient	CONSTANT B	
TEMPERATURE, WATER (DEG C)	162	12.46	6.81	0.00	25.00						
STREAMFLOW, MEAN DAILY (CFS)	150	616.17	580.41	54.00	2960.00						
SPECIFIC CONDUCTANCE (MICROMhos)	69	576.10	191.38	230.00	1020.00						
OXYGEN, DISSOLVED	9	9.49	1.59	7.20	12.10						
P+ (STANDARD UNITS)	69	163.87	37.37	84.00	212.00	60	0.17607	58.26618	0.8885	17.29656	
BICARBONATE ION	60	0.60	0.60	0.60	0.60						
NITRITE + NITRATE, DISSOLVED AS N	1	258.10	80.99	100.00	420.00	60	0.42533	3.00067	0.9904	11.31735	
MARINNESS, TOTAL	57	66.12	19.63	27.00	97.00	57	0.09859	7.59843	0.9600	5.54697	
CALCIUM, DISSOLVED	57	22.37	8.94	7.30	46.00	57	0.04415	-3.83539	0.9437	2.98553	
MAGNESIUM, DISSOLVED	60	30.19	13.24	8.00	72.00	60	0.06766	-10.39589	0.9635	3.57540	
SODIUM, DISSOLVED	57	2.64	0.60	1.30	4.00	57	0.00246	1.18055	0.7800	0.38010	
POTASSIUM, DISSOLVED	60	9.71	4.11	1.10	19.00	60	0.02053	-2.60222	0.9415	1.39793	
CHLORIDE, DISSOLVED	60	172.22	77.90	44.00	412.00	60	0.40477	-70.54773	0.9798	15.70760	
SULFATE, DISSOLVED	56	11.19	1.89	7.60	16.00	56	0.00423	8.65507	0.4169	1.73613	
SILICA, DISSOLVED	56	47.74	40.11	0.02	200.00						
BORON, DISSOLVED, ug/l	56	413.53	143.02	139.00	769.00	60	0.75410	-38.74790	0.9943	15.36647	
DISSOLVED SOLIDS, ROE 180 DEG C	60	381.51	145.64	135.00	623.00	35	0.73459	-42.40516	0.9965	12.27717	
DISSOLVED SOLIDS, SUM OF CONST	35										

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 07099500 NAME: ARKANSAS RIVER NEAR PUEBLO, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H
TEMPERATURE, WATER (DEG C)	34	13.39	6.76	1.50	24.00	
STREAMFLOW, MEAN DAILY. (CFS)	61	835.95	1031.96	46.00	3980.00	
STREAMFLOW (CUBIC FT/SEC)	1	400.00		400.00	400.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	46	575.28	179.32	254.00	959.00	
OXYGEN, DISSOLVED	9	9.49	1.23	8.10	11.50	
pH (STANDARD UNITS)	44	153.07	37.33	7.30	8.50	
BICARBONATE, ION	42	248.74	81.35	112.00	412.00	
HARDNESS, TOTAL	42	66.24	17.65	34.00	95.00	
CALCIUM, DISSOLVED	42	20.37	9.44	5.40	44.00	
MAGNESIUM, DISSOLVED	42	29.62	14.04	7.00	63.00	
SODIUM, DISSOLVED	37	9.52	4.33	2.10	20.00	
POTASSIUM, DISSOLVED	42	168.24	78.53	47.00	369.00	
CHLORIDE, DISSOLVED	42	9.39	3.41	1.40	15.00	
SULFATE, DISSOLVED	42	55.59	21.52	0.00	130.00	
SILICA, DISSOLVED	37	406.68	153.16	162.00	740.00	
BORON, DISSOLVED, UG/L	37	406.68	153.16	162.00	740.00	
DISSOLVED SOLIDS, ROE 180 DEG C	5	315.00	94.84	177.00	396.00	
DISSOLVED SOLIDS, SUM OF CONST				5	0.65463	-37.84513
					0.78497	-51.43058
					0.65463	0.9929
					0.65463	0.9914
					0.65463	14.29372

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L	1	0.00	0.00	1	0.00	0.00
CADMIUM(CD), UG/L	3	0.00	0.00	3	0.00	0.00
IRON (FE), UG/L	2	10.00	30.00	2	10.00	30.00
LEAD (PB), UG/L	1	2.00	2.00	1	2.00	2.00
MANGANESE(MN), UG/L	2	10.00	30.00	2	10.00	30.00
MERCURY (HG), UG/L	2	0.00	0.10	2	0.00	0.10
SELENIUM (SE), UG/L	2	2.00	5.00	2	2.00	5.00
ZINC (ZN), UG/L	1	32.00	32.00	1	32.00	32.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07106500 NAME: FOUNTAIN CREEK AT PUEBLO, CO.  
 LAT 38 18°27" LONG 104 36°09" DRAINAGE AREA: 926.001 SQ MI (2398.34 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	89	15.02	7.93	0.00	29.50	
STREAMFLOW, MEAN DAILY (CFS)	46	63.84	119.60	0.25	650.00	
STREAMFLOW (CUBIC FT/SEC)	10	48.38	35.76	0.10	100.00	
SPECIFIC CONDUCTANCE (MICROMhos)	114	2046.40	798.73	570.00	600.00	
OXYGEN, DISSOLVED	11	8.30	1.48	6.30	11.00	
pH (STANDARD UNITS)	51			6.60	8.70	
BICARBONATE ION	56	268.99	55.94	116.00	342.00	56
NITRITE + NITRATE, DISSOLVED AS N	32	1.45	1.21	0.00	5.50	
ORTHOPHOSPHATE, DISSOLVED AS P	32	0.62	0.61	0.03	1.90	
HARDNESS, TOTAL	56	750.88	356.66	170.00	1820.00	56
CALCIUM, DISSOLVED	56	177.80	62.63	48.00	319.00	56
MAGNESIUM, DISSOLVED	56	74.46	51.04	12.00	249.00	56
SODIUM, DISSOLVED	56	203.59	89.21	46.00	500.00	56
POTASSIUM, DISSOLVED	56	6.86	1.35	4.30	12.00	56
CHLORIDE, DISSOLVED	56	57.63	16.97	13.00	95.00	56
SULFATE, DISSOLVED	56	845.48	460.68	160.00	2190.00	56
SILICA, DISSOLVED	53	13.24	2.94	5.70	21.00	53
BORON, DISSOLVED, ug/l	21	230.00	65.50	120.00	380.00	
DISSOLVED SOLIDS, ROE 180 DEG C	24	2174.33	798.63	674.00	4130.00	24
DISSOLVED SOLIDS, SUM OF CONST	32	1155.00	410.33	374.00	2340.00	32
TOTAL DISSOLVED						
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:  
 IRON (FE), ug/l  
 MANGANESE (MN), ug/l

10.00 0.00 400.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07117000 NAME: ARKANSAS RIVER NEAR NEPESTA, CO.  
 LAT 38 11°03'N LONG 104 10°22'W DRAINAGE AREA: 9345 SQ MI (24203.5 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, CONSTANT, CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	39	14.47	6.79	2.00 - 27.00		
STREAMFLOW, MEAN DAILY, (CFS)	37	642.38	750.45	86.00 - 3820.00		
STREAMFLOW (CUBIC FT/SEC)	1	758.00	756.00	756.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	47	825.89	223.50	343.00 - 1200.00		
OXYGEN, DISSOLVED	10	7.39	0.79	6.20 - 8.40		
pH (STANDARD UNITS)	47					
BICARBONATE ION	41	165.39	34.13	99.00 - 234.00	41	0.12136 65.44233 0.8477
HARDNESS, TOTAL	40	346.43	101.95	158.00 - 516.00	40	0.42274 0.33533 0.9926
CALCIUM, DISSOLVED	30	88.83	25.19	47.00 - 124.00	30	0.09561 11.59052 0.9838
MAGNESIUM, DISSOLVED	31	28.65	11.75	9.20 - 53.00	31	0.04383 -6.73694 0.9531
SODIUM, DISSOLVED	31	4.38	20.74	12.00 - 89.90	31	0.07982 -16.25748 0.9714
POTASSIUM, DISSOLVED	27	4.44	1.82	1.60 - 9.00	27	0.00561 -0.26181 0.7814
CHLORIDE, DISSOLVED	41	18.63	7.47	4.50 - 31.00	41	0.02724 -3.81034 0.8700
SULFATE, DISSOLVED	41	279.95	106.96	78.00 - 490.00	41	0.44409 -85.79695 0.9899
SILICA, DISSOLVED, UG/L	31	9.72	2.19	5.50 - 14.00		
BORON, DISSOLVED, UG/L	24	94.58	34.13	40.00 - 150.00		
DISSOLVED SOLIDS, TDS, DEG C	35	610.06	195.37	219.00 - 95.00	35	0.82367 -79.63680 0.9922
DISSOLVED SOLIDS, SUM OF CONST	6	448.00	215.60	255.00 - 760.00	6	0.81650 -118.929 0.9959

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS!						
CADMUM(CD), UG/L	2	0.00	0.00			
IRON (FE), UG/L	2	20.00	20.00			
MANGANESE (MNI), UG/L	2	10.00	10.00			
MERCURY (Hg), UG/L	2	0.00	0.00			
SELENIUM (SE), UG/L	2	3.00	6.00			

LAT 38° 05'28" LONG 103° 58'52"

STATION NUMBER: 07119500 DRAINAGE AREA: 1125 SQ MI (2913.75 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION				REGRESSION COEFFICIENT, R	CONSTANT, A	CORRELATION COEFFICIENT	
TEMPERATURE, WATER (DEG C)	74	15.95	8.53	0.00	31.00					0.6670
STREAMFLOW, MEAN DAILY, (CFS)	51	13.35	20.01	0.60	105.00					32.89606
SPECIFIC CONDUCTANCE (MICROMHOS)	97	2090.56	819.77	599.00	3890.00					63.73450
pH (STANDARD UNITS)	50			7.10	8.10					35.53787
BICARBOONATE ION	51	215.75	43.71	116.00	322.00	51	0.03954	141.94510		0.9713
HARDNESS, TOTAL	51	1006.4	505.49	278.00	1900.00	51	0.68027	-263.15		0.992
CALCIUM, DISSOLVED	37	276.54	147.43	81.00	539.00	37	0.18962	-76.32752		0.9789
MAGNESIUM, DISSOLVED	37	78.27	38.89	15.00	148.00	37	0.05015	-16.54551		0.9595
SODIUM, DISSOLVED	39	102.33	43.77	24.00	171.00	39	0.05268	3.91619		0.9351
POTASSIUM, DISSOLVED	23	5.00	1.31	2.60	8.70					15.72028
CHLORIDE, DISSOLVED	51	32.91	12.40	8.50	53.00	51	0.01506	4.80178		0.8956
SULFATE, DISSOLVED	51	984.20	544.30	185.00	1940.00	51	0.73315	-184.129		0.9931
SILICA, DISSOLVED, UG/L	37	12.20	2.35	5.70	18.00					64.57653
BORON, DISSOLVED, UG/L	20	202.00	117.90	70.00	460.00					
DISSOLVED SOLIDS, ROE 180 DEG C	51	1695.49	842.75	426.00	320.00	51	1.13739	-427.285	0.9950	84.78612
DISSOLVED SOLIDS, SUM OF CONST	1	794.00	794.00	794.00	794.00	1	0.00000	794.00000	0.0000	0.00000

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%	90%	95%	99%	SAMPLE SIZE = 128
2890	2820	2750	2420	1740	1410	1150	1010	1010	1010	751

LAT 38 00'40" LONG 103 35'18"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 07122000 NAME: ARKANSAS RIVER NEAR LA JUNTA, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	STANDARD	COEFFICIENT, R					CONSTANT, B	CORRELATION COEFFICIENT, R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	51	12.34	8.70	0.00	30.50					
STREAMFLOW, MEAN DAILY. (CFS)	62	448.21	347.71	53.00	1600.00					
SPECIFIC CONDUCTANCE (MICROMhos)	66	1475.11	405.29	536.00	2440.00					
pH (STANDARD UNITS)	66			7.00	8.10					
BICARBONATE ION	66	223.71	39.48	121.00	288.00		66	0.08287	101.47075	0.8507
NITRITE + NITRATE, DISSOLVED AS N	2	2.30	1.84	1.00	3.60					
ORTHOPHOSPHATE, DISSOLVED AS P	2	0.09	0.04	0.06	0.12					
HARDNESS, TOTAL	64	644.53	190.77	226.00	1130.00		64	0.46316	-34.20069	0.9896
CALCIUM, DISSOLVED	39	153.05	44.29	67.00	281.00		39	0.10657	5.45467	0.9799
MAGNESIUM, DISSOLVED	41	55.34	19.57	14.00	105.00		41	0.04712	-10.83285	0.9794
SODIUM, DISSOLVED	44	103.59	40.58	28.00	207.00		44	0.09371	-29.53047	0.9809
POTASSIUM, DISSOLVED	27	5.94	1.50	2.70	8.20		27	0.00273	2.09849	0.86438
CHLORIDE, DISSOLVED	66	33.35	12.19	9.40	61.00		66	0.02789	-7.79463	0.9273
SULFATE, DISSOLVED	66	637.80	226.53	163.00	1250.00		66	0.55357	-178.77	0.9904
SILICA, DISSOLVED	41	11.94	1.62	6.80	16.00					
BORON, DISSOLVED, ug/l	24	176.25	59.40	90.00	360.00					
DISSOLVED SOLIDS, ROE 180 DEG C	62	1188.42	395.39	361.00	2240.00		62	0.95794	-208.584	0.9951
DISSOLVED SOLIDS, SUM OF CONST	6	1338.33	143.03	1170.00	1560.00					

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE  
DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C. THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL	DISOLVED	SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:  
 IRON (FE) • ug/l  
 MANGANESE (MN) • ug/l

2 10.00 80.00  
 2 160.00 290.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07124000 NAME: ARKANSAS RIVER AT LAS ANIMAS, CO.  
 LAT 38° 04'51" LONG 103° 13'09" DRAINAGE AREA: 14417 SQ MI (37340 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD DEVIATION	RANGE					REGRESSION COEFFICIENT	CONSTANT	CORRELATION COEFFICIENT R	
TEMPERATURE, WATER (DEG C)	82	18.00	10.23	0.00		44.00					
STREAMFLOW, MEAN DAILY, (CFS)	4.3	142.17	218.64	2.70		865.00					
STREAMFLOW (CUBIC FT/SEC)	1.2	40.43	69.21	6.00		252.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	135	2649.65	1017.06	680.00		4200.00					
P-1 (STANDARD UNITS)	5.1			7.20		8.20					
BICARBONATE ION	65	256.26	42.40	158.00		328.00	65	0.03633	154.64278	0.7571	27.91584
NITRITE + NITRATE, DISSOLVED AS N	1	0.77	.	0.77		0.77					
ORTHOPHOSPHATE, DISSOLVED AS P	1	0.01	0.01	0.01		0.01					
HARDNESS, TOTAL	65	1154.09	369.85	372.00		1650.00	65	0.41107	4.39752	0.9819	70.67566
CALCIUM, DISSOLVED	55	286.09	83.57	94.00		383.00	55	0.09420	1.6.06744	0.9573	24.39753
MAGNESIUM, DISSOLVED	55	110.91	39.87	26.00		173.00	55	0.04487	-16.75741	0.9558	11.83157
SODIUM, DISSOLVED	54	303.15	112.03	56.00		500.00	54	0.12820	-62.56340	0.9788	23.14405
POTASSIUM, DISSOLVED	31	5.65	1.00	3.70		8.50					
CHLORIDE, DISSOLVED	64	79.86	31.66	13.00		140.00	64	0.03378	-14.51878	0.9497	9.99651
SULFATE, DISSOLVED	65	1423.94	525.65	321.00		2140.00	65	0.59162	-230.723	0.9943	56.56891
SILICA, DISSOLVED	32	12.73	1.97	9.30		18.00					
BORON, DISSOLVED, UG/L	27	382.22	150.80	150.00		590.00					
DISSOLVED SOLIDS, ROE 180 DEG C	64	2377.66	829.59	648.00		3540.00	64	0.93451	-219.155	0.9893	121.74199
DISSOLVED SOLIDS, SUM OF CONST	1	3370.00	.	3370.00		3370.00	1	0.00000	3370	0.00000	0.00000

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.					
MINOR ELEMENTS:								
IRON (FE), UG/L	1	10.00	10.00					
MANGANESE (MN), UG/L	1	60.00	60.00					

LAT 38 02'02" LONG 103 12'00"

STATION NUMBER: 07128500 NAME: PURGATORY RIVER NEAR LAS ANIMAS, CO.  
DRAINAGE AREA: 3503 SQ MI (9072.17 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION IN CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	90	15.34	9.40	0.00	31.00			
STREAMFLOW, MEAN DAILY, (CFS)	58	128.04	441.22	0.80	2840.00			
STREAMFLOW (CUBIC FT/SEC)	6	22.95	23.55	1.90	67.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	116	3579.91	1277.48	1050.00	8000.00			
PH (STANDARD UNITS)	58	268.95	53.19	162.00	434.00	58	0.03010	168.47609
BICARBONATE ION	58	1431.72	492.17	480.00	2590.00	58	0.42762	4.58137
HARDNESS, TOTAL	44	308.18	87.63	128.00	531.00	44	0.07455	56.02129
CALCIUM, DISSOLVED	44	166.52	65.03	37.00	308.00	44	0.05864	-31.81492
MAGNESIUM, DISSOLVED	58	385.24	175.37	58.00	721.00	58	0.15100	-110.696
SODIUM, DISSOLVED	26	6.15	0.97	4.50	8.10			0.9689
POTASSIUM, DISSOLVED	58	81.61	37.90	3.10	148.00	58	0.02925	-16.01969
CHLORIDE, DISSOLVED	58	1878.64	577.56	412.00	3070.00	58	0.66806	0.8685
SULFATE, DISSOLVED	41	10.80	2.47	5.00	18.00	41	-0.00128	94.19589
SILICA, DISSOLVED	28	283.93	124.00	0.17	500.00			-0.5683
BORON, DISSOLVED, UG/L	56	3106.61	1197.66	797.00	5990.00	56	1.06004	-390.391
DISSOLVED SOLIDS, ROE 180 DEG C	3	3276.67	1117.15	1990.00	4000.00	3	0.95809	0.9969
DISSOLVED SOLIDS, SUM OF CONST								94.62994

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE  
DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

	1%	5%	10%	25%	50%	75%	90%	95%	99%
5050	4730	4560	4100	3480	2690	1430	1160	936	

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 07130500 NAME: ARKANSAS RIVER BELOW JOHN MARTIN RESERVOIR, CO.  
 LAT 38° 05' 02" LONG 102° 55' 10" DRAINAGE AREA: 18915.50 MI<sup>2</sup> (48949.8 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, CONSTANT, R	
TEMPERATURE, WATER (DEG C)	157	14.57	7.56	1.00	30.00		
STREAMFLOW, MEAN DAILY, (CFS)	666	265.14	343.15	1.33	3110.00		
STREAMFLOW (CUBIC FT/SEC)	56	187.95	324.88	0.50	1080.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	775	2746.68	1101.47	476.00	7000.00		
OXYGEN, DISSOLVED	73	9.98	1.95	6.60	14.00		
pH (STANDARD UNITS)	727			6.60	8.80		
BICARBONATE ION	711	255.97	85.55	114.00	644.00	710	0.6902
NITRITE + NITRATE, DISSOLVED AS N	82	1.05	0.79	0.01	4.00		
ORTHOPHOSPHATE, DISSOLVED AS P	77	0.02	0.02	0.00	0.08		
HARDNESS, TOTAL	708	1101.93	434.35	224.00	1910.00	707	0.40017
CALCIUM, DISSOLVED	502	269.28	68.49	65.00	488.00	501	0.08117
MAGNESIUM, DISSOLVED	491	117.74	52.18	15.00	219.00	490	0.04798
SODIUM, DISSOLVED	535	306.06	148.56	49.00	653.00	534	0.13725
POTASSIUM, DISSOLVED	142	7.42	3.00	3.10	11.00	141	0.00060
CHLORIDE, DISSOLVED	496	81.07	43.21	2.00	200.00	495	0.03813
SULFATE, DISSOLVED	497	1362.21	628.65	91.00	2640.00	496	0.57611
SILICA, DISSOLVED	258	13.97	6.10	3.90	58.00	257	0.00150
BORON, DISSOLVED, UG/L	54	257.86	241.08	0.16	880.00		
DISSOLVED SOLIDS, ROE 180 DEG C	636	2351.92	1055.63	296.00	4530.00	636	0.98637
DISSOLVED SOLIDS, SUM OF CONST	99	2528.45	946.85	486.00	4070.00	98	0.86208

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 8926

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL	DISSOLVED
NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
4640	4400	4150
3780	3040	1800
		1300
		1050
		820

MINOR ELEMENTS!  
 IRON (FE), UG/L  
 MANGANESE (MN), UG/L

17 0.00 150.00  
 89 0.00 3900.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 071330000 NAME: ARKANSAS RIVER AT LAMAR, CO.  
 LAT 38° 06'24" LONG 102° 37'04" DRAINAGE AREA: 19780 SQ MI (51230.2 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H
TEMPERATURE, WATER (DEG C)	144	14.31	8.11	0.00	31.00	
STREAMFLOW, MEAN DAILY, (CFS)	92	111.50	369.45	0.50	2500.00	
STREAMFLOW (CUBIC FT/SEC)	1	1.00	*	1.00	1.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	163	3720.66	1365.22	560.00	6500.00	
OXYGEN, DISSOLVED	32	9.52	1.56	6.20	12.00	
pH (STANDARD UNITS)	96	7.06	0.10	6.80	8.80	
BICARBONATE ION	67	286.79	54.79	129.00	390.00	65
NITRITE + NITRATE, DISSOLVED AS N	24	2.39	1.73	0.03	5.70	
ORTHOPHOSPHATE, DISSOLVED AS P	1	0.01	*	0.01	0.01	
HARDNESS, TOTAL	48	1480.46	465.57	350.00	2000.00	46
CALCIUM, DISSOLVED	49	323.84	92.04	91.00	430.00	47
MAGNESIUM, DISSOLVED	49	163.47	56.66	22.00	225.00	47
SODIUM, DISSOLVED	29	481.52	204.18	57.00	660.00	29
POTASSIUM, DISSOLVED	30	8.21	1.69	5.80	14.00	30
CHLORIDE, DISSOLVED	66	127.52	43.91	11.00	171.00	64
SULFATE, DISSOLVED	66	2141.21	698.15	299.00	2720.00	64
SILICA, DISSOLVED	28	13.05	2.86	8.90	22.00	
BORON, DISSOLVED, UG/L	21	602.38	286.72	80.00	950.00	
DISSOLVED SOLIDS, ROE 180 DEG C	49	3552.78	1193.30	617.00	5080.00	47
DISSOLVED SOLIDS, SUM OF CONST	3	3906.67	350.05	3560.00	4260.00	

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE), UG/L	1	20.00	20.00			
MANGANESE (Mn), UG/L	1	230.00	230.00			
MERCURY (HG), UG/L	1	0.50	0.50			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 07137500 NAME: ARKANSAS RIVER NEAR COOLIDGE, KANS.

LAT 38° 01' 34" LONG 102° 00' 41" DRAINAGE AREA: 25410 SQ MI (65811.9 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, A	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	258	15.09	9.09	0.00 - 32.00				
STREAMFLOW, MEAN DAILY, (CFS)	347	281.16	824.67	0.10 - 1050.00				
STREAMFLOW (CUBIC FT/SEC)	78	100.69	222.19	1.60 - 1750.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	265	3750.17	1137.69	475.00 - 6500.00				
OXYGEN, DISSOLVED	83	9.55	1.94	5.60 - 13.00				
pH (STANDARD UNITS)	213			7.00 - 8.80				
BICARBONATE ION	166	251.87	45.33	132.00 - 344.00	163	0.02803	145.34321	0.6532
NITRITE + NITRATE, DISSOLVED AS N	38	2.28	0.98	0.10 - 3.90				
ORTHOPHOSPHATE, DISSOLVED AS P	15	0.03	0.01	0.00 - 0.06				
HARDNESS, TOTAL	169	1420.67	388.02	194.00 - 1900.00	167	0.35298	85.04983	0.9674
CALCIUM, DISSOLVED	130	349.22	70.57	115.00 - 450.00	127	0.07338	52.79407	0.9220
MAGNESIUM, DISSOLVED	130	158.37	36.34	33.00 - 203.00	127	0.3609	12.45257	27.1697
SODIUM, DISSOLVED	112	483.06	159.85	27.00 - 660.00	111	0.14354	-68.50668	0.9593
POTASSIUM, DISSOLVED	81	10.96	2.27	5.30 - 17.00	81	0.00097	7.02967	0.4060
CHLORIDE, DISSOLVED	172	137.16	53.13	5.40 - 228.00	169	0.04237	-23.20628	0.8606
SULFATE, DISSOLVED	170	1981.83	616.47	116.00 - 2720.00	167	0.55457	-109.798	0.9641
SILICA, DISSOLVED	94	13.86	2.97	5.40 - 23.00	94	0.00115	9.26929	0.3700
BORON, DISSOLVED, UG/L	25	499.20	135.71	120.00 - 680.00				
DISSOLVED SOLIDS, ROE 100 DEG C	127	3476.46	968.03	773.00 - 4660.00	126	0.95200	-168.483	0.9717
DISSOLVED SOLIDS, SUM OF CONST	62	3466.58	768.04	968.00 - 4300.00	62	0.72180	456.07824	0.8866

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

INDICATED PERCENTAGE OF TIME	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
1%	6710	6570	6260	4520	3710	1920	1350	1050	584

CONSTITUENT	TOTAL				DISSOLVED				SAMPLE SIZE = 163
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.			
MINOR ELEMENTS:									
ARSENIC (AS), UG/L	14	0.00	4.00						
CADMIUM (CD), UG/L	13	0.00	6.00						
CHROMIUM (CR), UG/L	14	0.00	20.00						
COPPER (CU), UG/L	14	0.00	9.00						
IRON (FE), UG/L	14	0.00	230.00						
LEAD (Pb), UG/L	13	0.00	16.00						
MANGANESE (Mn), UG/L	15	0.00	150.00						
MERCURY (HG), UG/L	14	0.00	2.30						
SELENIUM (SE), UG/L	14	0.00	30.00						
ZINC (Zn), UG/L	14	0.00	350.26311						

LAT 37 16'00" LONG 105 44'00"

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 08249200 NAME: RIO GRAND ABOVE CULEBRA CREEK, NR LOBATO, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD DEVIATION	RANGE		SAMPLE SIZE	REGRESSION COEFFICIENT, CONSTANT, CORRELATION COEFFICIENT B		
TEMPERATURE, WATER (DEG C)	30	10.30	8.49	0.00	25.00			
STREAMFLOW, MEAN DAILY (CFS)	540	333.14	475.55	3.00	3230.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	501	420.06	161.64	1.95.00	960.00			
P <sub>1</sub> (STANDARD UNITS)	492							
BICARBONATE ION	533	142.04	43.59	26.00	321.00	501	0.20594	56.68802
MARINESS, TOTAL	502	136.07	47.15	44.00	296.00	501	0.28425	14.5594
CALCIUM, DISSOLVED	540	40.04	14.05	13.00	88.00	501	0.08201	10.50907
MAGNESIUM, DISSOLVED	540	7.89	3.38	1.00	20.00	501	0.01952	6.03366
SODIUM, DISSOLVED	514	36.08	19.85	8.20	183.00	482	0.11175	-0.22416
POTASSIUM, DISSOLVED	41	5.66	2.17	2.50	14.00	41	0.01078	0.9414
CHLORIDE, DISSOLVED	69	9.71	6.61	1.50	33.00	69	0.04661	1.13184
SULFATE, DISSOLVED	69	76.09	56.67	15.00	296.00	69	0.31160	5.18309
SILICA, DISSOLVED	75	30.79	9.90	9.30	68.00	68	0.01389	0.9615
BORON, DISSOLVED, UG/L	41	104.63	64.77	20.00	270.00			
DISSOLVED SOLIDS, ROE 180 DEG C	479	298.83	115.30	99.00	805.00	478	0.69150	0.9126
DISSOLVED SOLIDS, SUM OF CONST	22	239.36	93.86	119.00	492.00	22	0.66160	1.39167

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE			SAMPLE SIZE = 6877	DISSOLVED
	1%	5%	10%		
889	691	605	490	361	271

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
IRON (FE) • UG/L	3	20.00	30.00			

MINOR ELEMENTS!

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 0A251500 NAME: RIO GRANDE NEAR LORATOS, CO.  
 LAT 37 04'42" LONG 105 45'22" DRAINAGE AREA: 7700 SQ MI (19943 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION				REGRESSION COEFFICIENT	CONSTANT B	CORRELATION COEFFICIENT	
TEMPERATURE, WATER (DEG C)	150	10.07	8.15	0.00	27.00					
STREAMFLOW, MEAN DAILY (CFS)	113	428.34	454.66	18.00	3140.00					
STREAMFLOW (CUBIC FT/SEC)	125	661.32	1203.44	12.00	6872.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	199	357.58	183.44	150.00	1010.00					
OXYGEN, DISSOLVED	76	9.67	1.88	6.00	14.00					
P+ (STANDARD UNITS)	196			6.40	8.80					
BICARBONATE ION	162	114.86	36.10	34.00	215.00	157	0.17974	50.16167	0.8874	16.50633
NITRITE + NITRATE, DISSOLVED AS N	35	0.13	0.15	0.00	0.60					
ORTHOPHOSPHATE, DISSOLVED AS P	25	0.08	0.05	0.00	0.21					
HARDNESS, TOTAL	150	115.47	53.92	49.00	340.00	147	0.28622	13.44305	0.9828	9.44195
CALCIUM, DISSOLVED	149	34.41	15.58	15.00	98.00	147	0.08214	0.9775	0.9775	3.12265
MAGNESIUM, DISSOLVED	149	7.20	3.79	2.70	24.00	147	0.01967	0.17151	0.9734	0.81644
SODIUM, DISSOLVED	130	27.25	18.66	9.10	100.00	130	0.10972	-10.71197	0.9699	4.55789
POTASSIUM, DISSOLVED	129	4.80	1.75	1.70	11.00	129	0.00740	2.22631	0.7009	1.25159
CHLORIDE, DISSOLVED	166	9.08	6.41	2.30	33.00	161	0.03526	-3.47343	0.9745	1.42264
SULFATE, DISSOLVED	164	72.91	60.90	18.00	320.00	159	0.32567	-43.70805	0.9764	12.68116
SILICA, DISSOLVED	130	28.22	5.94	16.00	41.00	130	0.01051	24.56769	0.2925	5.69922
DISSOLVED SOLIDS, ROE 1AN DEG C	137	250.23	130.27	80.00	712.00	134	0.68918	-1.35177	0.9912	16.60770
DISSOLVED SOLIDS, SUM OF CONST	56	218.05	106.22	102.00	642.00	56	0.71065	-13.50482	0.9843	18.92133

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME				SAMPLE SIZE = 978			
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	DISSOLVED

MINOR ELEMENTS:  
 ARSENIC (AS) • UG/L  
 CADMIUM (CD) • UG/L  
 CHROMIUM (CR) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (PB) • UG/L  
 MANGANESE (MN) • UG/L  
 MERCURY (HG) • UG/L  
 SELENIUM (SE) • UG/L  
 ZINC (ZN) • UG/L

LAT 40 19°40" LONG 105 34°39"

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 0913000 NAME: ALVA B ADAMS TUNA AT E PORTAL, NR ESTES PARK, CO.

REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION								
TEMPERATURE, WATER (DEG C)	91	6.85	5.12	1.50	17.00						
STREAMFLOW, MEAN DAILY, (CFS)	55	414.23	140.52	0.00	552.00						
STREAMFLOW (Cubic FT/SEC)	42	457.48	113.43	7.20	551.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	63	55.63	11.66	18.00	90.00						
OXYGEN, DISSOLVED	91	8.19	0.64	6.60	9.70						
P+ (STANDARD UNITS)	90	23.82	6.26	6.20	8.70						
BICARBONATE ION	22	0.08	0.06	7.00	33.00	22	0.51432	-0.83411	0.9373	2.23631	
NITRITE + NITRATE, DISSOLVED AS N	22	0.01	0.02	0.00	0.21						
ORTHOPHOSPHATE, DISSOLVED AS P	22	0.01	0.02	0.00	0.10						
HARDNESS, TOTAL	22	20.50	4.88	6.00	28.00	22	0.40899	0.89618	0.9569	1.45159	
CALCIUM, DISSOLVED	22	6.31	1.43	1.80	8.10	22	0.11900	0.60520	0.9472	0.47116	
MAGNESIUM, DISSOLVED	22	1.17	0.34	0.30	1.80	22	0.02741	-0.4579	0.9238	0.13286	
SODIUM, DISSOLVED	22	1.99	0.40	0.90	2.50	22	0.02210	0.93141	0.6345	0.31482	
POTASSIUM, DISSOLVED	22	0.67	0.16	0.20	0.90	22	0.01215	0.09055	0.8460	0.08952	
CHLORIDE, DISSOLVED	22	0.43	0.11	0.20	0.70	22	0.00697	0.09790	0.7040	0.08217	
SULFATE, DISSOLVED	22	4.34	1.73	1.30	7.00						
SILICA, DISSOLVED	21	4.29	0.70	3.00	5.70						
DISSOLVED SOLIDS, ROE 1AO DEG C	1	40.00	40.00	40.00	41.00	1	0.00000	40.00000	0.00000	0.00000	
DISSOLVED SOLIDS, SUM OF CONST	21	31.33	5.94	16.00	41.00	21	0.46921	9.00115	0.9154	2.45210	

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
CADMIUM (Cd) • ug/l	1	1.00	1.00			
COPPER (Cu) • ug/l	1	0.00	0.00			
IRON (Fe) • ug/l	22	20.00	250.00			
LEAD (Pb) • ug/l	1	3.00	3.00			
MANGANESE (Mn) • ug/l	22	0.00	20.00			
ZINC (Zn) • ug/l	1	0.00	0.00			

STATISTICAL SUMMARY OF WATER QUALITY DATA		NAME: COLORADO RIVER BELOW LAKE GRANARY, CO.				
LAT 40 08'39"	LONG 105 52'00"	DRAINAGE AREA	312.001 SQ MI (808.083 SQ KM)			
STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE						
REGRESSION SUMMARY						
CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	SAMPLE SIZE	STANDARD DEVIATION			
			RANGE			
			SAMPLE SIZE			
			REGRESSION COEFFICIENT R			
			CONSTANT B			
			CORRELATION COEFFICIENT R			
			STANDARD ERROR OF ESTIMATE			
TEMPERATURE, WATER (DEG C)	6.1	6.02	3.07	1.50	16.00	
STREAMFLOW, MEAN DAILY, (CFS)	49	58.81	97.28	9.83	433.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	60	60.34	7.41	50.00	100.00	
OXYGEN, DISSOLVED	21	9.27	0.70	8.10	10.50	
pH (STANDARD UNITS)	49			6.10	8.40	
BICARBONATE ION	28	31.25	2.05	26.00	35.00	
NITRITE + NITRATE, DISSOLVED AS N	12	0.10	0.04	0.04	0.19	
ORTHOPHOSPHATE, DISSOLVED AS P	12	0.01	0.01	0.00	0.02	
HARDNESS, TOTAL	28	24.79	3.25	21.00	35.00	
CALCIUM, DISSOLVED	28	7.46	1.12	6.30	12.00	
MAGNESIUM, DISSOLVED	28	1.50	0.49	0.80	2.90	
SODIUM, DISSOLVED	28	2.55	0.63	1.80	5.60	
POTASSIUM, DISSOLVED	28	0.87	0.12	0.70	1.10	
CHLORIDE, DISSOLVED	28	1.29	0.90	0.20	5.00	
SULFATE, DISSOLVED	28	3.98	1.26	1.40	6.60	
SILICA, DISSOLVED	12	6.08	0.53	5.30	7.00	
DISSOLVED SOLIDS, TDS 180 DEG C	1020	1	50.00	50.00	50.00	
DISSOLVED SOLIDS, SUM OF CONST	35.79	17	30.00	64.00	44.00	
				1.19366	-24.15087	0.7126
						5.16445

LAT 40° 05'00" LONG 106° 05'15" DRAINAGE AREA: 825.001 SQ MI (2136.75 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09034500 NAME: COLORADO RIVER AT HOT SULPHUR SPRINGS, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	139	6.31	6.36	0.00	20.50	
STREAMFLOW, MEAN DAILY. (CFS)	697	332.13	528.95	37.70	4166.00	
STREAMFLOW (CUBIC FT/SEC)	4.3	174.37	210.91	43.00	1100.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	743	131.40	28.43	52.00	279.00	
OXYGEN, DISSOLVED	91	9.56	1.11	7.20	11.80	
P-H (STANDARD UNITS)	696			6.20	8.70	
BICARBONATE ION	667	72.35	16.41	26.00	141.00	0.54756
NITRITE + NITRATE, DISSOLVED AS N	94	0.10	0.10	0.00	0.71	0.34489
ORTHOPHOSPHATE, DISSOLVED AS P	93	0.04	0.11	0.00	0.90	0.9552
HARDNESS, TOTAL	665	53.94	11.81	20.00	98.00	0.37891
CALCIUM, DISSOLVED	574	16.44	3.72	5.80	57.2	0.1194
MAGNESIUM, DISSOLVED	572	3.02	0.86	0.20	7.50	0.0204
SODIUM, DISSOLVED	478	6.40	2.30	1.50	34.00	0.05858
POTASSIUM, DISSOLVED	434	1.85	0.89	0.80	5.90	-1.28347
CHLORIDE, DISSOLVED	665	1.79	1.02	0.10	11.00	0.01541
SULFATE, DISSOLVED	664	6.73	2.87	1.00	26.00	0.04256
SILICA, DISSOLVED	523	12.43	1.96	5.60	22.00	0.03625
BORON, DISSOLVED, UG/L	226	25.22	31.06	0.00	220.00	522
DISSOLVED SOLIDS, TDS 180 DEG C	594	87.68	17.70	38.00	172.00	0.5693
DISSOLVED SOLIDS, SUM OF CONST	114	87.84	14.75	49.00	165.00	0.52328
					114	17.47661

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 8941
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
	200	173	165	153	141	124	97
							R? 64

MINOR ELEMENTS:  
IRON (FE), UG/L  
MANGANESE (MN), UG/L

IRON (FE), UG/L	0.00	570.00
MANGANESE (MN), UG/L	0.00	70.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09049200 NAME: WEST TENNIE CREEK AT COPPER MOUNTAIN, CO.  
 LAT 39 30'01" LONG 106 09'56" DRAINAGE AREA: 21.001 SQ MI (54.3926 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B
TEMPERATURE, WATER (DEG C)	75	5.29	4.71	0.00	18.00		
STREAMFLOW, MEAN DAILY, (CFS)	23	42.53	54.71	3.00	240.00		
STREAMFLOW (CUBIC FT/SEC)	42	66.37	90.65	2.20	334.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	73	138.92	48.76	65.00	220.00		
OXYGEN, DISSOLVED	1	9.30	.	9.30	9.30		
PH (STANDARD UNITS)	55		6.90	8.30			
BICARBONATE ION	13	97.85	22.11	53.00	117.00	12	0.51681
NITRATE + NITRATE, DISSOLVED AS N	59	1.14	3.45	0.00	19.00		
ORTHOPHOSPHATE, DISSOLVED AS P	61	0.01	0.08	0.00	0.59		
HARDNESS, TOTAL	68	72.15	24.54	25.00	140.00	66	0.44302
CALCIUM, DISSOLVED	68	25.34	8.60	9.30	50.00	66	0.15601
MAGNESIUM, DISSOLVED	68	2.15	0.81	0.40	3.60	66	0.01414
SODIUM, DISSOLVED	14	2.13	0.66	1.20	3.30	13	0.00975
POTASSIUM, DISSOLVED	13	0.58	0.19	0.40	1.00		
CHLORIDE, DISSOLVED	65	2.25	2.13	0.20	10.00	63	0.02443
SULFATE, DISSOLVED	12	4.37	0.48	3.50	5.30	11	0.00841
SILICA, DISSOLVED	13	5.76	0.64	4.80	7.20	12	0.01030
DISSOLVED SOLIDS, ROE 180 DEG C	53	84.26	27.52	42.00	162.00	52	0.49148
DISSOLVED SOLIDS, SUM OF CONST	11	94.00	21.40	55.00	115.00	10	0.46792

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE), $\mu\text{g/l}$	13	10.00	80.00			
MANGANESE (MN), $\mu\text{g/l}$	13	0.00	50.00			

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09066050      NAME: BLACK GORE CREEK NEAR VAIL, CO.  
 LAT 39°37'24"   LONG 106°16'47"   DRAINAGE AREA: 19.601 SQ MI (50.1665 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	STANDARD MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R CONSTANT, R <sup>a</sup> CORRELATION COEFFICIENT R <sup>b</sup>
TEMPERATURE, WATER (DEG C)	6.1	4.97	4.40	0.00	16.00	
STREAMFLOW, MEAN DAILY, (CFS)	21	43.40	51.24	2.90	178.00	
STREAMFLOW, (CUBIC FT/SEC)	37	48.05	62.54	2.50	224.00	
SPECIFIC CONDUCTANCE (MICROMhos)	63	166.95	49.72	80.00	260.00	
OXYGEN, DISSOLVED	1	10.00	.	10.00	10.00	
PH (STANDARD UNITS)	48	107.54	19.84	64.00	122.00	1.3
BICARBONATE, ION	13	0.83	2.40	0.00	12.00	
NITRITE + NITRATE, DISSOLVED AS N	55	0.02	0.08	0.00	0.60	
ORTHOPHOSPHATE, DISSOLVED AS P	57	0.02	0.08	0.00	0.60	
HARDNESS, TOTAL	63	82.40	21.81	44.00	120.00	63
CALCIUM, DISSOLVED	63	27.57	7.39	15.00	39.00	63
MAGNESIUM, DISSOLVED	63	3.27	0.83	1.50	4.80	63
SODIUM, DISSOLVED	14	2.86	0.79	1.60	4.50	14
POTASSIUM, DISSOLVED	13	0.71	0.16	0.50	1.00	
CHLORIDE, DISSOLVED	62	2.96	2.88	0.10	14.00	62
SULFATE, DISSOLVED	14	3.85	0.67	2.60	5.50	
SILICA, DISSOLVED	13	5.72	0.48	5.10	6.40	
DISSOLVED SOLIDS, ROE 180 DEG C	49	95.33	28.29	54.00	151.00	49
DISSOLVED SOLIDS, SUM OF CONST	13	102.85	17.86	64.00	121.00	13

CONSTITUENT	TOTAL DISSOLVED			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE), ug/l	1.3	1.00	100.00			
MANGANESE (Mn), ug/l	1.3	0.00	40.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09066250 NAME: GORE CREEK AT VAIL, CO.

LAT 39°38'35" LONG 106°20'44" DRAINAGE AREA: 55.001 SQ MI (142.453 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	69	5.32	4.67	0.00	19-00			
STREAMFLOW, MEAN DAILY, (CFS)	28	126.94	160.03	6.40	672.00			
STREAMFLOW (CUBIC FT/SEC)	35	170.60	238.26	5.00	1240.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	68	115.91	41.18	50.00	200.00			
OXYGEN, DISSOLVED	4	8.32	1.02	7.50	9.80			
PH (STANDARD UNITS)	49	77.21	20.62	32.00	8.60			
BICARBONATE, ION	14	63	1.15	4.12	29.00			
NITRITE + NITRATE, DISSOLVED AS N	63	0.00	0.01	0.00	0.03			
ORTHOPHOSPHATE, DISSOLVED AS P	65	56.97	19.92	21.00	93.00			
HARDNESS, TOTAL	70	70	18.12	6.40	67			
CALCIUM, DISSOLVED	70	6.60	0.40	31.00	67			
MAGNESIUM, DISSOLVED	71	2.82	0.99	4.40	68			
SODIUM, DISSOLVED	15	1.96	0.58	0.80	2.80			
POTASSIUM, DISSOLVED	14	0.64	0.20	0.30	1.00			
CHLORIDE, DISSOLVED	71	1.64	1.47	0.00	1.10			
SULFATE, DISSOLVED	14	3.84	0.54	3.00	4.80			
SILICA, DISSOLVED	14	4.81	0.80	2.60	6.10			
DISSOLVED SOLIDS, ROE 180 DEG C	54	63.83	22.20	32.00	117.00			
DISSOLVED SOLIDS, SUM OF CONST	13	73.92	19.30	32.00	93.00			

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	SAMPLES				
				14	10.00	0.00	190.00

## MINOR ELEMENTS:

IRON (FE) • UG/L  
MANGANESE (MNH) • UG/L

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09069000 NAME: EAGLE RIVER AT GYPSUM, CO.

LAT 39°39'00" LONG 106°57'00" DRAINAGE AREA: 844.001 SQ MI (2185.96 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY							
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, C	CORRELATION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	140	7.34	5.48	0.00	18.00				
STREAMFLOW, MEAN DAILY (CFS)	746	642.47	795.86	118.00	4640.00				
STREAMFLOW (CUBIC FT/SEC)	44	545.84	715.68	138.00	2860.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	790	778.25	353.28	168.00	1640.00				
OXYGEN, DISSOLVED	89	10.10	1.30	7.60	12.80				
P-4 (STANDARD UNITS)	636	146.32	41.98	55.00	300.00	617	0.11297	60.51432	0.9439
BICARBONATE ION	617	0.32	0.18	0.02	0.69				
NITRITE + NITRATE, DISSOLVED AS N	88	0.02	0.02	0.00	0.10				
DITHIOPHOSPHATE, DISSOLVED AS P	88	0.02	0.02	0.00	0.10				
HARDNESS, TOTAL	617	296.11	134.43	71.00	970.00	617	0.37187	14.38227	0.9684
CALCIUM, DISSOLVED	448	92.31	42.41	22.00	308.00	448	0.11375	2.83124	0.9558
MAGNESIUM, DISSOLVED	448	18.60	8.43	2.20	49.00	448	0.02228	1.07713	0.9419
SODIUM, DISSOLVED	392	47.73	29.91	3.40	131.00	392	0.07A71	-13.56340	0.9264
POTASSIUM, DISSOLVED	304	26.83	1.31	0.60	6.90	304	0.00272	0.71267	0.7352
CHLORIDE, DISSOLVED	620	65.29	43.52	3.00	184.00	620	0.11269	-20.58128	0.9109
SULFATE, DISSOLVED	619	183.03	104.46	21.00	786.00	619	0.28342	-33.19225	0.9535
SILICA, DISSOLVED	445	8.84	2.67	3.50	36.00	445	0.00487	5.02157	0.6492
BORON, DISSOLVED, UG/L	220	35.10	39.53	0.00	410.00				
DISSOLVED SOLIDS, ROE 180 DEG C	653	508.03	246.53	100.00	1130.00	653	0.69078	-27.03637	0.9953
DISSOLVED SOLIDS, SUM OF CONST	105	505.90	231.61	103.00	1370.00	105	0.69772	-39.79520	0.9817

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

CONSTITUENT	NO. SAMPLES	MAXIMUM CONC.			SAMPLE SIZE	SAMPLE SIZE = 10272
		MINIMUM CONC.	NO. SAMPLES	MINIMUM CONC.		
TOTAL					DISSOLVED	

CONSTITUENT	NO. SAMPLES	MAXIMUM CONC.			SAMPLE SIZE	SAMPLE SIZE = 10272
		MINIMUM CONC.	NO. SAMPLES	MINIMUM CONC.		
IRON (FE), UG/L	163	0.00	260.00			
MANGANESE (MNA), UG/L	78	20.00	620.00			

MINOR ELEMENTS:  
 IRON (FE), UG/L  
 MANGANESE (MNA), UG/L

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09070500      NAME: COLORADO RIVER NEAR DOTSERO, CO.  
 LAT 39° 38' 40" LONG 107° 04' 40" DRAINAGE AREA: 4394 Sq MI (111380.5 Sq KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
		MEAN						COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, R <sup>2</sup>
TEMPERATURE, WATER (DEG C)	85	7.62	6.43	0.00	23.00					
STREAMFLOW, MEAN DAILY, (CFS)	132	2458.19	2382.31	620.00	13500.00					
STREAMFLOW, (CUBIC FT/SEC)	65	2008.48	1511.31	541.00	7420.00					
SPECIFIC CONDUCTANCE (MICROMHRS)	125	425.31	120.73	160.00	750.00					
OXYGEN, DISSOLVED	43	10.07	1.54	7.60	14.00					
pH (STANDARD UNITS)	123	120.90	17.63	85.00	160.00	111	0.12189	68.00438	0.8429	9.52261
BICARBONATE ION	112	120.90	0.11	0.07	0.00	0.25				
NITRITE + NITRATE, DISSOLVED AS N	44	0.01	0.01	0.00	0.04					
ORTHOPHOSPHATE, DISSOLVED AS P	43	168.19	43.67	83.00	350.00	112	0.34195	19.74920	0.9497	13.74518
HARDNESS, TOTAL	113	50.38	13.89	24.00	120.00	110	0.10564	4.33162	0.9208	5.44921
CALCIUM, DISSOLVED	111	10.47	2.88	4.10	19.00	110	0.01928	2.07535	0.8101	1.69917
MAGNESIUM, DISSOLVED	92	24.08	10.75	5.40	60.00	91	0.08103	-10.96490	0.8969	4.80000
SODIUM, DISSOLVED	68	2.09	0.45	1.00	3.30	68	0.00262	0.9862	0.6545	0.34100
POTASSIUM, DISSOLVED	113	26.28	13.88	2.10	83.00	112	0.10305	-18.47237	0.9013	6.03884
CHLORIDE, DISSOLVED	113	82.92	33.44	23.00	240.00	112	0.25555	-28.04627	0.9275	12.55619
SULFATE, DISSOLVED	109	9.93	1.61	7.00	15.00					
SILICA, DISSOLVED	29	37.38	17.82	0.05	70.00					
BORON, DISSOLVED, UG/L	71	274.00	80.30	134.00	440.00	70	0.61960	3.13906	0.9849	14.02931
DISSOLVED SOLIDS, ROE 180 DEG C	51	253.84	70.54	116.00	520.00	51	0.60648	0.52617	0.9567	20.73042

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
		NO. SAMPLES	MAXIMUM CONC.			
MINOR ELEMENTS:						
IRON (FE) • UG/L		40	0.00			190.00
MANGANESE (MN) • UG/L		40	0.00			160.00

LAT 39°34'12" LONG 107°13'34"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09071100 NAME: COLORADO RIVER NEAR GLENWOOD SPRINGS, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD	COEFFICIENT, B				CONSTANT,	CORRELATION COEFFICIENT	Coefficient	
TEMPERATURE, WATER (DEG C)	137	7.63	6.07	0.00	18.50					
STREAMFLOW, MEAN DAILY, (CFS)	1010	2264.71	2484.74	488.00	16000.00					
STREAMFLOW (CUBIC FT/SEC)	80	2412.26	2330.36	600.00	13800.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	1135	634.12	215.69	56.40	1140.00					
OXYGEN, DISSOLVED	88	9.65	1.41	7.00	12.50					
P-4 (STANDARD UNITS)	770	1005	125.31	20.96	63.00	208.00	1004	0.08835	69.77465	0.9039
BICARBONATE, DISSOLVED AS N	88	0.13	0.10	0.00	0.50					
NITRITE + NITRATE, DISSOLVED AS N	87	0.01	0.02	0.00	0.11					
ORTHOPHOSPHATE, DISSOLVED AS P	87	0.01	0.02	0.00	0.11					
HARDNESS, TOTAL	1070	184.15	52.53	34.00	510.00	1069				
CALCIUM, DISSOLVED	942	55.71	15.95	20.00	180.00	938				
MAGNESIUM, DISSOLVED	942	11.98	3.81	4.10	52.00	937				
SILICON, DISSOLVED	940	58.42	32.61	6.20	620.00	937				
POTASSIUM, DISSOLVED	549	2.59	0.86	0.90	5.80	548				
CHLORIDE, DISSOLVED	967	77.79	39.50	6.00	200.00	966				
SULFATE, DISSOLVED	966	92.11	35.73	19.00	390.00	965				
SILICA, DISSOLVED, UG/L	778	11.16	2.00	5.70	26.00	773				
BORON, DISSOLVED, UG/L	195	41.41	40.38	0.00	370.00					
DISSOLVED SOLIDS, ROE 180 DEG C	977	382.50	130.41	54.00	815.00	977				
DISSOLVED SOLIDS, SUM OF CONST	209	371.06	127.73	105.00	791.00	208				

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 12850

CONSTITUENT	DAILY SPECIFIC CONDUCTANCE			TOTAL	DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
	1070	931	852	126	620	481	290
						241	199

## MINOR ELEMENTS:

IRON (FE), UG/L  
MANGANESE (MNN), UG/L490 0.00 240.00  
77 0.00 120.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09072500      NAME: COLORADO RIVER AT GLENWOOD SPRINGS, CO.  
 LAT 39 33'00" LONG 107 19'13" DRAINAGE AREA: 455A SQ MI (11805.2 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD DEVIATION	REGRESSION COEFFICIENT, R					CONSTANT, B	CORRELATION COEFFICIENT, R		
TEMPERATURE, WATER (DEG C)	9	8.17	6.54	0.56	18.00						
STREAMFLOW, MEAN DAILY, (CFS)	85	2264.49	1918.63	49.00	8320.00						
STREAMFLOW (CUBIC FT/SEC)	38	2592.03	2002.68	708.00	8320.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	53	771.17	312.71	261.00	1490.00						
pH (STANDARD UNITS)	52			7.00	8.20						
BICARBONATE ION	52	131.06	22.71	84.00	187.00	52	52	0.066446	80.17694	0.9162	9.18926
HARDNESS, TOTAL	53	186.74	52.51	93.00	318.00	53	53	0.15592	66.49474	0.9285	19.69495
CALCIUM, DISSOLVED	53	56.21	16.03	28.00	90.00	53	53	0.04528	21.28731	0.8833	7.59019
MAGNESIUM, DISSOLVED	53	11.39	4.08	4.60	23.00	53	53	0.01073	3.11180	0.8216	2.35059
SODIUM, DISSOLVED	37	91.30	49.71	16.00	198.00	37	37	0.14716	-26.16177	0.9889	7.48173
POTASSIUM, DISSOLVED	17	3.29	1.69	1.00	5.40	17	17	0.0329	0.62485	0.8898	0.70370
CHLORIDE, DISSOLVED	52	121.73	71.13	20.00	305.00	52	52	0.22329	-49.17778	0.9227	13.32186
SULFATE, DISSOLVED	52	90.79	35.59	27.00	155.00	52	52	0.10400	11.16617	0.9176	14.24227
SILICA, DISSOLVED	52	10.27	1.58	7.90	13.00						
BORON, DISSOLVED, UG/L	21	46.67	13.54	20.00	70.00						
DISSOLVED SOLIDS, ROE 180 DEG C	53	453.32	179.14	155.00	870.00	53	53	0.51172	12.42538	0.9980	11.42565
DISSOLVED SOLIDS, SUM OF CONST	6	373.83	175.74	200.00	522.00	6	6	0.5585	21.94244	0.9979	9.15888

CONSTITUENT	TOTAL			DISSOLVED			NO. SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.				
MINOR ELEMENTS!				1	3.30	3.30				
IRON (FE), UG/L										

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09085000 NAME: HARRING FORK RIVER AT GLENWOOD SPRINGS, CO.  
 LAT 39 32°37' LONG 107 19°44" DRAINAGE AREA: 1451 SQ MI (3758.09 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	SAMPLE STDEV	REGRESSION COEFFICIENT R					CONSTANT B	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	6.3	8.29	5.30	0.00	18.50					
STREAMFLOW, MEAN DAILY, (CFS)	221	1427.75	1456.98	212.00	7390.00					
STREAMFLOW (CUBIC FT/SEC)	4.5	1412.44	1328.27	32H.00	5830.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	217	516.06	175.05	190.00	900.00					
OXYGEN, DISSOLVED	1.0	9.31	1.06	8.00	10.80					
pH (STANDARD UNITS)	10.8			7.00	8.70					
BICARBONATE ION	180	147.32	37.58	14.00	213.00	180	0.20	75.3	42.08918	0.9586
NITRITE + NITRATE, DISSOLVED AS N	0	0.20	0.11	0.10	0.40					
ORTHOPHOSPHATE, DISSOLVED AS P	8	0.01	0.01	0.00	0.02					
HARDNESS, TOTAL	179	218.02	70.50	83.00	330.00	179	0.40095	15.80868	0.9934	0.08461
CALCIUM, DISSOLVED	65	69.62	21.40	28.00	103.00	65	0.11938	7.00955	0.9738	4.90373
MAGNESIUM, DISSOLVED	64	12.04	5.06	3.20	27.00	64	0.02613	-1.45616	0.9064	2.15625
SODIUM, DISSOLVED	53	21.31	11.37	2.70	46.00	53	0.05920	-9.33486	0.9478	3.66071
POTASSIUM, DISSOLVED	26	1.54	0.44	0.70	2.40	26	0.00217	0.41399	0.8740	0.21647
CHLORIDE, DISSOLVED	180	24.55	14.89	2.10	64.00	180	0.08077	-16.22695	0.9453	4.87166
SULFATE, DISSOLVED	180	107.85	45.11	29.00	190.00	180	0.25095	-18.84665	0.9698	11.03578
SILICA, DISSOLVED	52	10.46	1.86	5.60	15.00	52	0.00701	6.98405	0.6809	1.37530
BORON, DISSOLVED, UG/L	6	28.33	18.35	10.00	60.00					
DISSOLVED SOLIDS, ROE 180 DEG C	173	324.21	115.17	118.00	509.00	173	0.65412	-3.29821	0.9954	11.09906
DISSOLVED SOLIDS, SUM OF CONST	25	339.88	98.89	126.00	490.00	25	0.64119	-11.59516	0.9903	14.01147

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 1970

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME.

CONSTITUENT	TOTAL			DISOLVED	MAXIMUM CONC.	MINIMUM CONC.	SAMPLES	NO. CONC.	NO. CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.						
	810	742	714	669	605	433	260	230	203

MINOR ELEMENTS:  
 IRON (FE), UG/L  
 MANGANESE (MN), UG/L

IRON (FE), UG/L	1	40.00	40.00
MANGANESE (MN), UG/L	1	10.00	10.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09093000 NAME: PARACHUTE CREEK NEAR GRAND VALLEY, CO.

LAT 39°34'01" LONG 108°06'37" DRAINAGE AREA: 141.001 SQ MI (365.193 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R COEFFICIENT B CORRELATION COEFFICIENT R CORRELATION COEFFICIENT B STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	4.9	9.04	5.74	0.00	21.00	
STREAMFLOW (CUBIC FT/SEC)	64	17.35	39.90	0.32	251.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	41	714.68	97.92	435.00	890.00	
OXYGEN, DISSOLVED	41	9.70	1.35	8.20	13.00	
pH (STANDARD UNITS)	41					
BICARBONATE ION	34	349.68	41.42	240.00	420.00	
NITRITE + NITRATE, DISSOLVED AS N	2	1.02	0.40	0.74	1.30	
ORTHOPHOSPHATE, DISSOLVED AS P	2	0.06	0.01	0.05	0.06	
HARDNESS, TOTAL	36	290.56	34.88	210.00	350.00	
CALCIUM, DISSOLVED	36	55.58	3.84	45.00	62.00	
MAGNESIUM, DISSOLVED	36	36.89	7.35	20.00	50.00	
SODIUM, DISSOLVED	36	60.69	14.75	29.00	86.00	
POTASSIUM, DISSOLVED	37	2.46	0.70	1.20	4.00	
CHLORIDE, DISSOLVED	36	6.33	2.09	2.10	14.00	
SULFATE, DISSOLVED	36	110.92	34.02	39.00	200.00	
SILICA, DISSOLVED	36	16.50	1.18	14.00	19.00	
BORON, DISSOLVED, UG/L	37	94.05	31.40	30.00	150.00	
DISSOLVED SOLIDS, SUM OF CONST	34	465.44	75.09	288.00	583.00	

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

SAMPLE SIZE = 114?

TOTAL

DISSOLVED

SAMPLE SIZE = 114?

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09093500 NAME: PARACHUTE CREEK AT GRAND VALLEY, CO.

LAT 39 27'11" LONG 108 03'33" DRAINAGE AREA: 198.001 SQ MI (512.823 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	48	9.33	6.55	0.00	21.50	
STREAMFLOW, MEAN DAILY, (CFS)	1	10.70	5.0	10.70	10.70	
STREAMFLOW (CUBIC FT/SEC)	47	31.43	55.00	0.12	304.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	45	1271.33	405.44	520.00	2300.00	
OXYGEN, DISSOLVED	43	10.21	1.33	7.40	12.90	
pH (STANDARD UNITS)	45	442.64	78.62	194.00	580.00	0.7354
BICARBONATE ION	45	0.64	0.35	0.04	1.60	
NITRATE + NITRATE, DISSOLVED AS N	44	0.04	0.06	0.00	0.28	
ORTHOPHOSPHATE, DISSOLVED AS P	44	0.04	0.06	0.00	0.28	
HARNESS, TOTAL	45	491.33	140.71	210.00	620.00	0.9420
CALCIUM, DISSOLVED	45	90.91	24.51	54.00	160.00	0.9319
MAGNESIUM, DISSOLVED	45	63.78	19.60	19.00	100.00	0.9575
SODIUM, DISSOLVED	45	123.29	54.85	38.00	280.00	0.9255
POTASSIUM, DISSOLVED	45	3.98	1.08	0.90	0.70	0.9640
CHLORIDE, DISSOLVED	45	12.56	3.86	4.20	22.00	0.9642
SULFATE, DISSOLVED	45	340.36	183.36	64.00	800.00	0.9220
SILICA, DISSOLVED	43	17.72	1.80	15.00	23.00	0.5365
BORON, DISSOLVED, ug/l	42	149.29	56.28	0.00	290.00	1.54068
DISSOLVED SOLIDS, SUM OF CONST	43	85.70	315.16	352.00	1640.00	0.9713

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	TOTAL			DISOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
1%	5%	10%	25%	50%	75%	90% 95% 99%
2400	2040	1640	1380	1200	1040	728 614 510

MINOR ELEMENTS:	SAMPLE SIZE = 1280		
	AS	CD	CU
ARSENIC (AS), ug/l	43	42	42
CADMIUM (CD), ug/l	0.00	3.00	0.00
COPPER (CU), ug/l	0.00	7.00	0.00
IRON (FE), ug/l	0.00	180.00	0.00
LEAD (PB), ug/l	0.00	21.00	0.00
MANGANESE (MN), ug/l	0.00	6.00	0.00
MERCURY (HG), ug/l	0.40	0.00	0.00
SELENIUM (SE), ug/l	0.00	0.00	0.00
ZINC (ZN), ug/l	41	42	41

LAT 39 21'45" LONG 104 09'07" DRAINAGE AREA: 7370 SQ MI (19088.3 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09093700 NAME: COLORADO RIVER NEAR DE BEAUF, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD	REGRESSION COEFFICIENT, CONSTANT, CORRELATION COEFFICIENT				R	B		
TEMPERATURE, WATER (DEG C)	78	9.63	6.41	0.00	22.50					
STREAMFLOW, MEAN DAILY, (CFS)	38	4073.95	3701.27	1740.00	16000.00					
STREAMFLOW (CUBIC FT/SEC)	52	3807.12	4257.41	1140.00	17400.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	75	920.87	339.04	270.00	1980.00					
OXYGEN, DISSOLVED	52	9.76	1.35	7.40	12.00					
PH (STANDARD UNITS)	51			7.10	8.50					
BICARBONATE ION	50	152.48	27.64	95.00	205.00	50	0.07896	80.52553	0.9345	9.94109
NITRITE + NITRATE, DISSOLVED AS N	50	0.17	0.12	0.01	0.43					
ORTHOPHOSPHATE, DISSOLVED AS P	50	0.01	0.01	0.00	0.05					
CALCIUM, DISSOLVED	50	225.00	58.46	110.00	340.00	50	0.17044	69.68212	0.9537	17.76568
MAGNESIUM, DISSOLVED	50	64.94	16.66	31.00	95.00	50	0.04786	21.32823	0.9398	5.74995
SODIUM, DISSOLVED	50	15.19	4.28	6.70	24.00	50	0.01246	3.82777	0.9533	1.30497
POTASSIUM, DISSOLVED	50	101.86	47.35	14.00	190.00	50	-0.14306	-20.51371	0.9884	7.27525
CHLORIDE, DISSOLVED	50	3.71	1.15	1.20	5.60	50	0.00336	0.64542	0.9545	0.34738
SULFATE, DISSOLVED	50	140.36	68.67	18.00	280.00	50	0.20692	-4.20287	0.9856	11.72906
SILICA, DISSOLVED	50	120.26	41.62	37.00	190.00	50	0.12032	10.60991	0.9458	13.65931
DISSOLVED SOLIDS, SUM OF CONST	50	530.96	189.37	163.00	859.00	50	0.57417	7.71671	0.9918	24.47059

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:

IRON (FE) • UG/L  
MANGANESE (MN) • UG/L

50 0.00 210.00  
50 0.00 60.00

LAT 39° 27' 12" LONG 108° 18' 59"

STATION NUMBER: 090950000 NAME: ROAN CREEK NEAR DE REQUE, CO.

DRAINAGE AREA: 321.001 SQ MI (831.393 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY							
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	43	8.85	5.83	0.00 - 20.50				
STREAMFLOW (CUBIC FT/SEC)	41	35.53	47.86	5.43 - 230.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	43	1116.05	221.72	460.00 - 1500.00				
OXYGEN, DISSOLVED	42	9.82	1.33	6.40 - 11.90				
P (STANDARD UNITS)	42							
HICARONATE ION	41	480.68	83.11	142.00 - 575.00	41	0.31715	127.80082	0.8635
NITRATE + NITRATE, DISSOLVED AS N	41	0.74	0.30	0.01 - 1.50				
ORTHOPHOSPHATE, DISSOLVED AS P	41	0.04	0.08	0.00 - 0.50				
HARDNESS, TOTAL	42	442.93	88.27	140.00 - 560.00	41	0.37343	21.78166	0.9547
CALCIUM, DISSOLVED	42	74.14	12.30	26.00 - 90.00	42	0.04960	5.75457	0.8868
MAGNESIUM, DISSOLVED	41	62.56	14.72	17.00 - 83.00	41	0.06149	-5.80290	0.9430
SODIUM, DISSOLVED	42	108.95	27.46	39.00 - 150.00	42	0.11592	-20.38284	0.9474
POTASSIUM, DISSOLVED	41	3.42	0.68	2.00 - 5.80	41	0.00187	1.31080	0.5540
CHLORIDE, DISSOLVED	42	9.32	3.37	2.90 - 17.00	42	0.00826	0.10311	0.5504
SULFATE, DISSOLVED	40	254.57	73.45	95.00 - 400.00	40	0.30721	-90.34247	0.9189
SILICA, DISSOLVED, UG/L	40	15.50	1.11	1.00 - 18.00				
BORON, DISSOLVED, UG/L	41	210.24	42.81	100.00 - 280.00				
DISSOLVED SILIUS, SUM OF CONST	38	184.26	143.56	458.00 - 1030.00	38	0.69138	-1.17574	0.9407
								0.35917

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 1337			
CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	DISSOLVED	
					DISOLVED	CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L		41		1.00		6.00
CADMIUM (CD), UG/L		39		0.00		2.00
COPPER (CU), UG/L		39		0.00		0.00
IRON (FE), UG/L		40		0.00		200.00
LEAD (PB), UG/L		39		0.00		19.00
MANGANESE (Mn), UG/L		40		0.00		60.00
MERCURY (HG), UG/L		39		0.00		0.10
SELENIUM (Se), UG/L		41		0.00		6.00
ZINC (Zn), UG/L		39		0.00		40.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09095500 NAME: COLORADO RIVER NEAR CAMEO, CO.  
 LAT 39 14' 20" LONG 108 16' 00" DRAINAGE AREA: R050 SQ MI (20849.5 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			
	MEAN	STANDARD DEVIATION	R					REGRESSION COEFFICIENT	CONSTANT	CORRELATION COEFFICIENT B	ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	1.35	9.64	6.91	0.00	23.00						
STREAMFLOW, MEAN DAILY (CFS)	1030	3953.29	4461.82	913.00	28900.00						
STREAMFLOW (CUBIC FT/SEC)	78	4241.10	4786.37	1140.00	22400.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	1045	989.79	365.44	251.00	1740.00						
OXYGEN, DISSOLVED	85	9.64	1.53	6.90	12.80						
P <sub>4</sub> (STANDARD UNITS)	555			6.90							
BICARBONATE ION	639	162.69	29.06	72.00	234.00	586	0.07469	80.87878	0.8824	13.47576	
NITRITE + NITRATE, DISSOLVED AS N	86	0.27	0.26	0.00	1.40						
ORTHOPHOSPHATE, DISSOLVED AS P	86	0.02	0.06	0.00	0.58						
HARDNESS, TOTAL	610	240.95	64.15	100.00	376.00	564	0.17698	69.29939	0.9587	17.58033	
CALCIUM, DISSOLVED	529	68.50	17.09	30.00	107.00	483	0.04670	23.32115	0.9398	5.66412	
MAGNESIUM, DISSOLVED	527	17.36	6.13	2.90	45.00	481	0.01541	2.32393	0.8723	2.87927	
SODIUM, DISSOLVED	306	111.46	50.77	10.00	206.00	260	0.14290	-30.19355	0.9894	6.82397	
POTASSIUM, DISSOLVED	188	4.01	1.41	1.30	9.60	142	0.00335	0.66812	0.8249	0.73298	
CHLORIDE, DISSOLVED	634	147.80	70.56	10.00	305.00	581	0.19914	-47.94765	0.9859	11.38834	
SULFATE, DISSOLVED	627	138.19	52.73	19.00	252.00	574	0.14879	-7.98029	0.9720	12.07745	
SILICA, DISSOLVED	465	10.14	2.33	3.90	23.00	421	0.00162	8.35316	0.2534	2.05680	
BORON, DISSOLVED, UG/L	114	111.27	330.67	0.00	2100.00						
DISSOLVED SOLIDS, ROE 180 DEG C	903	615.42	230.38	152.00	1050.00	851	0.60987	-6.44124	0.9961	20.04871	
DISSOLVED SOLIDS, SUM OF CONST	147	596.72	217.40	143.00	996.00	104	0.58021	6.88327	0.9911	24.47594	

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 15208

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	DISSOLVED	
	NO.	MINIMUM CONC.	MAXIMUM CONC.					MINIMUM CONC.	MAXIMUM CONC.
	128	0.00	240.00	76	0.00	90.00	333	279	

MINOR ELEMENTS:  
 IRON (FE) • UG/L  
 MANGANESE (MN) • UG/L

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09105000 NAME: PLATEAU CREEK NEAR CAMEO, CO.  
 LAT 39 11'00" LONG 108 16'10" DRAINAGE AREA: 592.001 SQ MI (1533.28 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	M.FAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, B
TEMPERATURE, WATER (DEG C)	74	10.11	7.84	0.00	27	0.00	
STREAMFLOW, MEAN DAILY, (CFS)	38	232.55	266.31	50.00	935.00		
STREAMFLOW (CUBIC FT/SEC)	37	137.41	179.25	12.00	1000.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	76	672.49	193.03	240.00	950.00		
OXYGEN, DISSOLVED	50	10.31	1.52	7.20	13.40		
pH (STANDARD UNITS)	7.0	339.02	88.12	130.00	450.00	62	0.45884
BICARBONATE, ION,	62	0.38	0.74	0.00	5.30		
NITRITE + NITRATE, DISSOLVED AS N	51	0.03	0.02	0.00	0.09		
ORTHOPHOSPHATE, DISSOLVED AS P	50	0.03	0.02	0.00	0.09		
HARNESS, TOTAL	62	256.65	67.13	100.00	360.00	62	0.34301
CALCIUM, DISSOLVED	61	51.23	11.90	26.00	72.00	61	0.04779
MAGNESIUM, DISSOLVED	61	31.56	10.88	8.70	48.00	61	0.05459
SODIUM, DISSOLVED	60	60.97	22.84	14.00	100.00	60	0.11383
POTASSIUM, DISSOLVED	56	5.09	1.63	2.00	8.60	56	0.00723
CHLORIDE, DISSOLVED	60	9.22	3.54	2.00	21.00	60	0.01567
SULFATE, DISSOLVED	61	93.41	35.34	20.00	160.00	61	0.17142
SILICA, DISSOLVED	59	24.00	6.20	11.00	35.00	59	0.02800
BORON, DISSOLVED, ug/l	9	61.03	61.20	0.04	170.00		5.12107
DISSOLVED SOLIDS, ROE 180 DEG C	11	453.42	110.23	179.00	546.00	11	0.64328
DISSOLVED SOLIDS, SUM OF CONST	53	439.36	131.71	153.00	607.00	53	0.66807

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 1219

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	DISSOLVED CONC.
	1%	5%	10%	25%	50%

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:			
IRON (FE) • ug/l	48	0.00	170.00
MANGANESE (Mn) • ug/l	48	0.00	40.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09106700 NAME: LEWIS WASH NEAR GRAND JUNCTION, CO.  
 LAT 39° 03' 38" LONG 108° 28' 38" DRAINAGE AREA: 4,721.50 MI<sup>2</sup> (112.2274 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY							
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
<b>REGRESSION TABLE OF DAILY SPECIFIC CONDUCTANCE</b>								
TEMPERATURE, WATER (DEG C)	29	10.53	6.83	1.00	21.00			
STREAMFLOW, MEAN DAILY (CFS)	5	10.63	8.76	0.84	18.00			
STREAMFLOW (CUBIC FT/SEC)	25	9.12	9.60	0.07	34.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	28	2950.79	2094.99	516.00	6000.00			
OXYGEN, DISSOLVED	28	9.87	1.67	7.00	12.60			
PH (STANDARD UNITS)	28	293.17	131.29	114.00	461.00	28	0.06228	106.51197
BICARBONATE ION	28	4.52	4.38	0.34	11.00			
NITRITE + NITRATE, DISSOLVED AS N	28	0.03	0.05	0.00	0.23			
ORTHOPHOSPHATE, DISSOLVED AS P	28	0.03	0.05	0.00	0.23			
HARDNESS, TOTAL	29	1380.69	1125.04	200.00	2800.00	28	0.53790	-228.657
CALCIUM, DISSOLVED	29	275.21	201.01	53.00	530.00	28	0.09567	-12.9303
MAGNESIUM, DISSOLVED	29	168.83	153.27	7.00	380.00	28	0.07214	-48.01117
SODIUM, DISSOLVED	28	239.71	153.28	35.00	440.00	27	0.07029	19.76279
POTASSIUM, DISSOLVED	29	7.06	3.48	1.80	18.00	28	0.00128	3.24002
CHLORIDE, DISSOLVED	29	175.00	78.87	34.00	270.00	28	0.0343	75.6351
SULFATE, DISSOLVED	29	1367.59	1199.39	130.00	2900.00	28	0.57316	-350.433
SILICA, DISSOLVED, ug/L	28	10.57	2.63	6.40	16.00	27	0.00197	7.67530
BORON, DISSOLVED, ug/L	1	80.00	80.00	80.00	80.00			
DISSOLVED SOLIDS, SUM OF CONST	27	2456.26	1901.09	344.00	4730.00	26	0.88619	-240.276

DAILY SPECIFIC CONDUCTANCE IN  
 MICROMHOS AT 25 DEG C, THAT WAS  
 EQUALLED OR EXCEEDED FOR THE  
 INDICATED PERCENTAGE OF TIME

TOTAL  
 NO. SAMPLES  
 MINIMUM CONC.  
 MAXIMUM CONC.

CONSTITUENT	DAILY SPECIFIC CONDUCTANCE			SAMPLE SIZE = 1616
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	

MINOR ELEMENTS:

CADMIUM (CD), ug/L  
 COPPER (CU), ug/L  
 IRON (FE), ug/L  
 LEAD (PB), ug/L  
 MANGANESE (MNN), ug/L  
 MERCURY (HG), ug/L  
 SELENIUM (SE), ug/L

LAT 38 46°33" LONG 107 57°39"

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09137300 NAME: GUNNISON RIVER AT AUSTIN, CO.

CONSTITUENT	REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE			REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE			REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE		
	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R	
STREAMFLOW, MEAN DAILY, (CFS)	35	1705.89	2481.55	190.00 - 12000.00	35	0.13907	59.23310	0.9634	
SPECIFIC CONDUCTANCE (MICROMHOS)	35	651.86	296.55	188.00 - 830.00	35	0.42125	-6.44925	11.64027	
pH (STANDARD UNITS)	35	7.10	0.30		1	0.00000	59.99998	0.9949	
BICARBONATE ION	35	149.89	42.81	81.00 - 238.00	1	0.00000	15.00000	0.0000	
HARDNESS, TOTAL	35	268.14	125.56	85.00 - 570.00	35	0.00000	21.99998	0.0000	
CALCIUM, DISSOLVED	1	60.00	.	60.00 - 60.00	1	0.00000	2.00000	0.0000	
MAGNESIUM, DISSOLVED	1	15.00	.	15.00 - 15.00	1	0.00000	0.00000	0.0000	
SODIUM, DISSOLVED	1	22.00	.	22.00 - 22.00	1	0.00000	0.00000	0.0000	
POTASSIUM, DISSOLVED	1	2.00	.	2.00 - 2.00	1	0.00000	2.00000	0.0000	
CHLORIDE, DISSOLVED	35	9.90	4.99	2.00 - 20.00	35	0.01535	-0.10808	2.01879	
SULFATE, DISSOLVED	35	209.80	131.38	24.00 - 529.00	35	0.44559	-77.40407	0.9945	
SILICA, DISSOLVED	1	12.00	.	12.00 - 12.00	1	0.00000	11.99999	0.0000	
BORON, DISSOLVED, ug/l	1	60.00	.	60.00 - 60.00					
DISSOLVED SOLIDS, ROE 180 DEG C	35	449.86	227.84	121.00 - 1010.00	35	0.76560	-49.20164	0.9965	

CONSTITUENT	TOTAL DISSOLVED			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE), ug/l	1	210.00	210.00			

96  
MINOR ELEMENTS:  
IRON (FE), ug/l

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09152500 NAME: GUNNISON RIVER NEAR GRAND JUNCTION, CO.

LAT 38° 59' 00" LONG 108° 27' 00"

MAINTAINAGE AREA:

7928 SQ MI (120533.5 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	154	10.86	7.02	0.00	25-50	
STREAMFLOW, MEAN DAILY (CFS)	1309	2382.34	2997.67	122.00	22500.00	
STREAMFLOW (CUBIC FT/SEC)	149	2691.69	3263.87	148.00	16000.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	1258	1314.89	561.20	303.00	2960.00	
OXYGEN, DISSOLVED	84	9.34	1.52	6.60	12.90	
pH (STANDARD UNITS)	652			6.60	8.70	
BICARBONATE ION	919	194.02	42.96	90.00	340.00	778
NITRITE + NITRATE, DISSOLVED AS N	53	1.02	0.50	0.20	2.0	
ORTHOPHOSPHATE, DISSOLVED AS P	53	0.02	0.02	0.00	0.11	
HARDNESS, TOTAL	948	542.99	253.69	105.00	1370.00	813
CALCIUM, DISSOLVED	773	135.69	61.26	38.00	335.00	637
MAGNESIUM, DISSOLVED	773	51.97	26.18	5.80	134.00	637
SODIUM, DISSOLVED	661	110.41	65.43	4.20	348.00	526
POTASSIUM, DISSOLVED	453	5.18	2.41	1.50	14.00	318
CHLORIDE, DISSOLVED	865	16.23	9.32	1.00	60.00	724
SULFATE, DISSOLVED	865	560.03	326.24	60.00	1790.00	724
SILICA, DISSOLVED	676	15.92	3.49	5.90	37.00	534
BORON, DISSOLVED, UG/L	143	148.70	84.72	0.00	350.00	
DISSOLVED SOLIDS, ROE 180 DEG C	1150	1097.23	560.50	203.00	3030.00	1009
DISSOLVED SOLIDS, SUM OF CONST	372	1073.45	569.83	214.00	2820.00	237

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
2600	2210	1980	1660	1360	800	506	427	338

CONSTITUENT	DISSOLVED			SAMPLE SIZE
	TOTAL	NO. SAMPLES	MINIMUM CONC.	
				=14359

## MINOR ELEMENTS:

ARSENIC (AS), UG/L	1.4	0.00	1.00
CADMIUM (CD), UG/L	1.3	0.00	2.00
CHROMIUM (CR), UG/L	1.4	0.00	10.00
COPPER (CU), UG/L	1.3	0.00	7.00
IRON (FE), UG/L	21.4	0.00	24.00
LEAD (PB), UG/L	1.3	0.00	9.00
MANGANESE (MN), UG/L	55	0.00	140.00
MERCURY (HG), UG/L	1.4	0.00	0.00
SELENIUM (SE), UG/L	1.3	0.00	25.00
ZINC (ZN), UG/L	1.3	0.00	30.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09152600 NAME: UCHARD MESA DRAIN AT GRAND JUNCTION, CO.

LAT 39 02'49" LONG 108 34'17" DRAINAGE AREA: 3.701 SQ MI (9.58559 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT A	CORRELATION COEFFICIENT B
TEMPERATURE, WATER (DEG C)	40	12.90	7.16	0.50	25			
STREAMFLOW, MEAN DAILY, (CFS)	7	16.93	20.58	1.40	60			
STREAMFLOW (CUBIC FT/SEC)	23	7.28	6.67	0.48	20			
SPECIFIC CONDUCTANCE (MICROMHOS)	40	2980.50	1153.78	1200.00	4500.00			
OXYGEN, DISSOLVED	24	9.97	1.78	6.60	12.70			
pH (STANDARD UNITS)	29	7.410	67.01	141.00	315.00	29	0.05436	109.97867
BICARBONATE ION	29	274.10	1.54	0.73	7.70			
NITRITE + NITRATE, DISSOLVED AS N	28	2.73	0.06	0.07	0.27			
ORTHOPHOSPHATE, DISSOLVED AS P	28	0	0.06	0.07	0.70			
HARDNESS, TOTAL	29	1351.38	600.11	580.00	2100.00	29	0.51174	-193.534
CALCIUM, DISSOLVED	29	357.59	151.91	150.00	590.00	29	0.12641	-24.4455
MAGNESIUM, DISSOLVED	29	112.34	57.65	45.00	220.00	29	0.04868	-34.61262
SODIUM, DISSOLVED	28	226.79	89.53	90.00	360.00	28	0.07664	-0.4349
POTASSIUM, DISSOLVED	29	6.02	1.98	3.30	11.00	29	0.00128	2.15599
CHLORIDE, DISSOLVED	29	171.41	48.04	68.00	240.00	29	0.3045	79.4937
SULFATE, DISSOLVED	29	1349.66	673.70	500.00	2100.00	29	0.57668	-391.33
SILICA, DISSOLVED	29	16.08	5.26	3.90	25.00	29	0.00279	7.64084
BORON, DISSOLVED, ug/l	1	230.00	230.00	230.00			0.6048	4.26798
DISSOLVED SOLIDS, SUM OF CONST	28	2416.50	1042.07	982.00	3580.00	28	0.88034	-291.225

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

TOTAL	NU. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NU. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
5630	4580	4440	4060	2220	1860	1480	1320	1050

CONSTITUENT	TOTAL	DISOLVED			SAMPLE SIZE	STANDARD ERROR OF ESTIMATE
		NU. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
ARSENIC (AS), ug/l					1	0.00
CADMIUM (CD), ug/l					1	1.00
COPPER (CU), ug/l					1	2.00
IRON (FE), ug/l					1	2.00
LEAD (PB), ug/l					1	4.00
MANGANESE (MN), ug/l					1	4.00
SELENIUM (SE), ug/l					1	5.60

## MINOR ELEMENTS:

ARSENIC (AS), ug/l  
CADMIUM (CD), ug/l  
COPPER (CU), ug/l  
IRON (FE), ug/l  
LEAD (PB), ug/l  
MANGANESE (MN), ug/l  
SELENIUM (SE), ug/l

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09152650 NAME: LEACH CREEK AT DURHAM, CO.

LAT 39 05'27" LONG 108 36'25" DRAINAGE AREA: 24.801 SQ MI (64.22345 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	39	11.64	7.26	0.50	23.00			
STREAMFLOW, MEAN DAILY. (CFS)	4	41.40	37.69	6.60	75.00			
STREAMFLOW (CUBIC FT/SEC)	23	24.46	19.68	4.80	54.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	36	2782.94	1382.71	946.00	5000.00			
OXYGEN, DISSOLVED	26	11.04	2.73	7.30	15.60			
pH (STANDARD UNITS)	28	264.25	70.01	138.00	313.00	0.04741	123.93872	0.9531
BICARBONATE ION	28	3.84	2.89	0.71	8.20			
NITRITE + NITRATE, DISSOLVED AS N	28	0.05	0.07	0.00	0.28			
ORTHOPHOSPHATE, DISSOLVED AS P	28	1360.00	748.44	360.00	2200.00	0.51355	-141.634	0.9759
HARDNESS, TOTAL	28	324.32	167.47	91.00	540.00	0.11335	-11.16380	168.68490
CALCIUM, DISSOLVED	28	135.82	80.27	31.00	240.00	0.0527	-25.3705	51.05392
MAGNESIUM, DISSOLVED	28	219.54	99.08	57.00	330.00	0.06719	19.65307	0.9692
SODIUM, DISSOLVED	28	7.31	2.59	3.00	13.00	0.00161	2.3932	0.9720
POTASSIUM, DISSOLVED	28	156.25	48.28	16.00	210.00	0.02520	81.01065	23.84957
CHLORIDE, DISSOLVED	28	1371.07	824.41	310.00	2300.00	0.56816	-309.313	0.7194
SULFATE, DISSOLVED	27	11.19	3.34	7.40	24.00	0.00132	1.70002	0.5506
SILICA, DISSOLVED	27	2334.96	1252.49	608.00	3740.00	0.85872	-174.855	0.9816
DISSOLVED SOLIDS, SUM OF CONST	27							247.54628

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

SAMPLE SIZE = 1650

CONSTITUENT	DISSOLVED			
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES
TOTAL				

MINOR ELEMENTS:  
IRON (FE) • 0.00  
MANGANESE (MN) • 0.00

IRON (FE) • 0.00  
MANGANESE (MN) • 0.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09152900 NAME: ADOBE CREEK NEAR FRUITA, CO.  
 LAT 39° 08' 13" LONG 108° 41' 48" DRAINAGE AREA: 15.401 SQ MI (39.8886 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY					
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	32	9.88	7.23	0.00 - 21.50		
STREAMFLOW, MEAN DAILY. (CFS)	5	15.44	15.05	2.10 - 37.00		
STREAMFLOW (CUBIC FT/SEC)	27	18.29	18.78	0.65 - 52.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	32	3071.09	1516.85	925.00 - 5000.00		
OXYGEN, DISSOLVED	30	10.27	2.48	7.00 - 14.10		
P <sub>4</sub> (STANDARD UNITS)	32					
BICARBONATE ION	32	302.50	104.28	7.40 - 8.40		
NITRITE + NITRATE, DISSOLVED AS N	32	5.60	3.87	1.40 - 10.00		
ORTHOPHOSPHATE, DISSOLVED AS P	32	0.04	0.05	0.00 - 0.27		
HARDNESS, TOTAL	32	1320.31	725.98	410.00 - 2100.00	32	0.47457 - 137.135
CALCIUM, DISSOLVED	32	313.44	156.03	110.00 - 480.00	32	0.10173 - 1.01475
MAGNESIUM, DISSOLVED	32	130.66	82.57	31.00 - 240.00	32	0.05335 - 33.8410
SODIUM, DISSOLVED	32	280.59	146.94	72.00 - 470.00	32	0.09529 - 12.0534
POTASSIUM, DISSOLVED	32	6.98	2.28	1.20 - 12.00	32	0.00138 - 2.03327
CHLORIDE, DISSOLVED	32	180.09	62.26	56.00 - 260.00	32	0.03358 - 76.96051
SULFATE, DISSOLVED	32	1360.31	838.57	340.00 - 2300.00	32	0.54227 - 322.419
SILICA, DISSOLVED	32	9.63	1.59	6.80 - 13.00	32	0.00448 - 8.15182
DISSOLVED SOLIDS, SUM OF CONST	32	2456.34	1338.63	701.00 - 3910.00	32	0.87465 - 235.916

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE  
DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

PERCENTAGE	TOTAL SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	SAMPLE SIZE = 1992
1%	53	10%	25%	75% 90% 95% 99%
5470	5020	4910	4380	1890 1470 1160 1080 971

CONSTITUENT	DISSOLVED			
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	MINIMUM CONC.
IRON (FE), ug/l	32	0.00	190.00	
MANGANESE (MNI), ug/l	32	30.00	520.00	

MINOR ELEMENTS:  
 IRON (FE), ug/l  
 MANGANESE (MNI), ug/l

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09153270 NAME: BIG SALT WASH AT FRUITA, CO.

LAT 39°09'49" LONG 108°45'01" DRAINAGE AREA: 142.001 SQ MI (367.783 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT

CONCENTRATION (MG/L OR UNIT SHOWN)

	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, R <sup>2</sup>	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	29	10.36	6.88	1.50	22.50			
STREAMFLOW, MEAN DAILY (CFS)	6	55.92	45.71	9.20	106.00			
STREAMFLOW (CUBIC FT/SEC)	23	54.34	47.79	6.50	149.50			
SPECIFIC CONDUCTANCE (MICROMHOS)	27	2537.78	924.78	930.00	4000.00			
OXYGEN, DISSOLVED	29	9.78	1.44	7.40	12.80			
PH (STANDARD UNITS)	29	321.76	93.78	155.00	432.00	27	0.09783	69.72983
RICARBONATE ION	28	3.60	3.29	0.95	18.00			
NITRITE + NITRATE, DISSOLVED AS N	28	0.03	0.04	0.00	0.14			
ORTHOPHOSPHATE, DISSOLVED AS P	29	1146.21	468.19	410.00	1800.00	27	0.51937	-175.823
HARDNESS, TOTAL	29	216.21	111.82	100.00	430.00	27	0.11833	-25.11745
CALCIUM, DISSOLVED	29	212.03	52.08	39.00	180.00	27	0.05580	-30.13321
MAGNESIUM, DISSOLVED	29	195.90	67.05	70.00	280.00	27	0.07003	16.03154
SODIUM, DISSOLVED	29	6.19	1.41	3.50	8.30	27	0.01129	2.92874
POTASSIUM, DISSOLVED	29	145.34	45.75	46.00	220.00	27	0.03279	64.01579
CHLORIDE, DISSOLVED	29	1064.14	489.49	330.00	1800.00	27	0.52372	-276.859
SULFATE, DISSOLVED	28	11.16	2.26	7.80	15.00	26	0.00177	6.77347
SILICA, DISSOLVED	28	1958.21	801.14	700.00	3120.00	26	0.86202	-218.751
DISSOLVED SOLIDS, SUM OF CONST								

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 1660

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C. THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

PERCENTAGE	TIME	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
1%	4990	4230	3920	3470	2080	1670

CONSTITUENT	TOTAL	DISSOLVED
IRON (FE) • UG/L	28	0.00
MANGANESE (MN) • UG/L	29	20.00

MINOR ELEMENTS:  
 IRON (FE) • UG/L  
 MANGANESE (MN) • UG/L

LAT 39 11'01" LONG 108 47'17"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09153300

NAME: REED WASH NEAR LOMA, CO.

DRAINAGE AREA: 29.301 SQ MI (75.8895 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

## CONSTITUENT CONCENTRATION (MG/L OR UNIT SHOWN)

CONSTITUENT	REGRESSION SUMMARY					
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	32	9.69	6.42	0.50	20.50	
STREAMFLOW, MEAN DAILY, (CFS)	5	110.20	88.08	10.00	184.00	
STREAMFLOW (CUBIC FT/SEC)	28	78.23	76.49	6.20	197.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	30	3314.33	1596.82	1160.00	5500.00	
OXYGEN, DISSOLVED	31	10.01	2.01	7.00	13.60	
pH (STANDARD UNITS)	30					
BICARBONATE ION	31	297.19	81.27	170.00	388.00	29
NITRITE + NITRATE, DISSOLVED AS N	32	5.45	3.33	1.10	9.80	
ORTHOPHOSPHATE, DISSOLVED AS P	31	0.03	0.03	0.00	0.09	
HARDNESS, TOTAL	31	1610.32	814.81	520.00	2500.00	29
CALCIUM, DISSOLVED	31	358.06	161.96	130.00	540.00	29
MAGNESIUM, DISSOLVED	31	17.16	100.26	47.00	290.00	29
SODIUM, DISSOLVED	31	264.74	122.90	76.00	430.00	29
POTASSIUM, DISSOLVED	31	8.66	3.01	4.00	14.00	29
CHLORIDE, DISSOLVED	31	177.61	54.83	58.00	260.00	29
SULFATE, DISSOLVED	31	1622.29	916.49	410.00	2600.00	29
SILICA, DISSOLVED	31	8.73	1.36	6.40	12.00	
DISSOLVED SOLIDS, SUM OF CONST	31	2786.00	1394.28	827.00	4250.00	29

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE						SAMPLE SIZE = 1998
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C. THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%
1160	5640	5250	4620	2140	1710	1300
						1190

CONSTITUENT	TOTAL DISSOLVED			MAXIMUM CONC.	MINIMUM CONC.	SAMPLE SIZE	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.				
	30	0.00	20.00	90.00	95%	99%	240.00
	31						

## MINOR ELEMENTS:

IRON (FE) • 0.6/L  
MANGANESE (Mn) • 0.6/L

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09163310

NAME: EAST SALT CREEK NEAR MACK, CO.

LAT 39 17'50" LONG 108 51'58" DRAINAGE AREA: 197.001 SQ MI (510.233 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	REGRESSION SUMMARY		
	SAMPLE MEAN	STANDARD	RANGE			SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B
TEMPERATURE, WATER (DEG C)	33 11.15	7.60	1.00	24.00				
STREAMFLOW, MEAN DAILY, (CFS)	6 0.91	1.01	0.15	2.60				
STREAMFLOW, (CUBIC FT/SEC)	23 6.00	15.4	0.14	72.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	31 4390.19	1993.24	890.00	8500.00				
OXYGEN, DISSOLVED	33 9.25	1.41	7.00	12.60				
PH (STANDARD UNITS)	32 458.00	118.14	7.20	8.50				
BICARBONATE, ION	33 0.44	0.27	0.14	1.20				
NITRITE + NITRATE, DISSOLVED AS N	33 0.04	0.06	0.00	0.34				
ORTHOPHOSPHATE, DISSOLVED AS P	33 0.04	0.06	0.00	0.34				
HARDNESS, TOTAL	33 1616.67	717.81	340.00	2500.00				
CALCIUM, DISSOLVED	33 316.58	145.61	62.00	470.00				
MAGNESIUM, DISSOLVED	33 200.18	95.71	44.00	340.00				
SODIUM, DISSOLVED	33 564.97	281.66	94.00	1100.00				
POTASSIUM, DISSOLVED	33 6.36	1.78	2.80	1.30				
CHLORIDE, DISSOLVED	33 193.03	101.14	10.00	380.00				
SULFATE, DISSOLVED	33 2142.73	1047.32	250.00	3700.00				
SILICA, DISSOLVED	31 14.82	3.47	6.20	19.00				
DISSOLVED SOLIDS, SUM OF CONST	31 3661.42	1626.09	634.00	5830.00				

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

SAMPLE SIZE = 1885

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

TOTAL DISSOLVED

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:  
IRON (FE) • 0.0000  
MANGANESE (Mn) • 0.0000J2 10.00  
J3 10.00  
190.00  
710.00

LAT 39 15'57" LONG 102 50'32" DRAINAGE AREA: 15.901 SQ MI ( 41.1836 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION					REGRESSION COEFFICIENT R	CONSTANT R	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	32	13.48	4.90	7.00	22.00					
STREAMFLOW, MEAN DAILY, (CFS)	5	15.48	15.70	2.20	33.00					
STREAMFLOW (CUBIC FT/SEC)	27	14.24	24.41	1.40	98.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	32	2866.25	1217.94	875.00	4500.00					
OXYGEN, DISSOLVED	32	8.33	0.82	6.50	10.10					
PH (STANDARD UNITS)	31	223.03	48.21	7.10	8.60					
BICARBONATE, ION	32	1.79	1.21	0.18	3.90					
NITRITE + NITRATE, DISSOLVED AS N	31	0.01	0.02	0.00	0.06					
ORTHOPHOSPHATE, DISSOLVED AS P	31	0.01	0.02	0.00	0.06					
HARDNESS, TOTAL	32	1367.50	697.53	310.00	2000.00					
CALCIUM, DISSOLVED	32	37A.13	193.29	65.00	550.00					
MAGNESIUM, DISSOLVED	32	103.41	53.04	23.00	160.00					
SODIUM, DISSOLVED	32	165.34	54.57	72.00	240.00					
POTASSIUM, DISSOLVED	32	6.09	1.56	2.90	8.50					
CHLORIDE, DISSOLVED	32	154.75	32.25	80.00	220.00					
SULFATE, DISSOLVED	32	1339.38	729.76	230.00	2000.00					
SILICA, DISSOLVED	30	8.79	1.78	4.90	11.00					
DISSOLVED SOLIDS, SUM OF CONST	30	2277.20	1106.27	572.00	3270.00					

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

SAMPLE SIZE = 1888

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
	4800	4160	4080	3760	3340	1370

MINOR ELEMENTS:  
IRON (FE) • 0.6/L  
MANGANESE (Mn) • 0.6/L

31	0.00	80.00
32	0.00	90.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09163490 NAME: SALT CREEK NEAR MACK, CO.

LAT 39 13°18" LONG 102 53°32" DRAINAGE AREA: 436.001 SQ MI ( 1129.24 SQ KM )

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY					
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	33	10.29	8.13	0.00	23.00		
STREAMFLOW, MEAN DAILY, (CFS)	6	71.33	61.65	10.00	148.00		
STREAMFLOW (CUBIC FT/SFC)	27	71.80	75.45	2.50	245.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	31	3965.16	1546.50	1170.00	5500.00		
OXYGEN, DISSOLVED	29	10.05	1.95	7.30	13.20		
pH (STANDARD UNITS)	30			7.30	8.60		
BICARBONATE ION	33	284.64	82.68	122.00	391.00	31	0.05069
NITRITE + NITRATE, DISSOLVED AS N	33	3.16	1.97	0.71	6.40		0.9476
ORTHOPHOSPHATE, DISSOLVED AS P <sup>-</sup>	33	0.03	0.06	0.00	0.37		26.89196
HARDNESS, TOTAL	33	1464.85	747.25	450.00	2500.00	31	0.47165
CALCIUM, DISSOLVED	33	318.18	150.03	100.00	510.00	31	0.09189
MAGNESIUM, DISSOLVED	33	163.18	94.67	48.00	300.00	31	0.05931
SODIUM, DISSOLVED	33	303.64	151.96	100.00	550.00	31	0.09014
POTASSIUM, DISSOLVED	33	7.37	2.24	3.60	12.00	31	0.00130
CHLORIDE, DISSOLVED	33	168.64	53.50	56.00	260.00	31	0.02407
SULFATE, DISSOLVED	33	1628.18	953.83	390.00	2900.00	31	0.59712
SILICA, DISSOLVED	33	9.15	1.97	4.40	12.00	31	0.00066
DISSOLVED SOLIDS, SUM OF CONST	33	2753.73	1419.67	427.00	4610.00	31	0.89440

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 191

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C. THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	TOTAL	DISSOLVED
1%	5%	25%
1620	5480	4700
2090	1640	1250
		1110
		903

CONSTITUENT	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
IRON (FE) • UG/L	31	0.00	130.00			
MANGANESE (MN) • UG/L	33	10.00	300.00			

## MINOR ELEMENTS:

IRON (FE) • UG/L  
MANGANESE (MN) • UG/L

LAT 39 07'45" LONG 109 01'36" STATION NUMBER: 09163500 NAME: COLORADO RIVER NEAR COLORADO-UTAH STATE LINE  
 DRAINAGE AREA: 17843 SQ MI ( 46213.4 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	REGRESSION COEFFICIENT R	CONSTANT A	CORRELATION COEFFICIENT R	REGRESSION SUMMARY	STANDARD ERROR OF ESTIMATE
	MEAN	SD	N								
TEMPERATURE, WATER (DEG C)	50 10.93	7.92	0.00	23.00							
STREAMFLOW, MEAN DAILY, (CFS)	39 6704.87	4412.02	2020.00	15400.00							
STREAMFLOW (CUBIC FT/SEC)	19 5200.53	5261.94	1240.00	21190.00							
SPECIFIC CONDUCTANCE (MICROMhos)	41 1100.73	357.03	471.00	1830.00							
OXYGEN, DISSOLVED	16 9.20	1.94	7.00	12.20							
pH (STANDARD UNITS)	39	7.00	8.30								
BICARBONATE ION	27 176.74	32.68	108.00	238.00	27	0.08547	85.58662	0.9208	12.99954		
NITRITE + NITRATE, DISSOLVED AS N	15 0.94	0.43	0.33	1.80							
ORTHOPHOSPHATE, DISSOLVED AS P	14 0.06	0.08	0.00	0.24							
HARDNESS, TOTAL	27 369.11	141.41	170.00	680.00	27	0.39331	-50.34971	0.9791	29.34684		
CALCIUM, DISSOLVED	27 93.15	36.24	45.00	180.00	27	0.0987	-12.40606	0.9615	10.16112		
MAGNESIUM, DISSOLVED	27 33.22	13.02	13.00	57.00	27	0.03597	-5.13869	0.9721	3.11310		
SODIUM, DISSOLVED	27 89.93	34.00	29.00	150.00	27	0.09415	-10.47990	0.9747	7.75436		
POTASSIUM, DISSOLVED	27 3.84	1.07	2.00	5.90	27	0.00276	0.89771	0.9093	0.45388		
CHLORIDE, DISSOLVED	27 74.08	28.19	22.00	120.00	27	0.06831	1.22811	0.8532	14.98908		
SULFATE, DISSOLVED	27 312.78	156.19	110.00	660.00	27	0.43146	-147.361	0.9724	37.16525		
SILICA, DISSOLVED	20 11.30	1.46	8.70	14.00							
BORON, DISSOLVED, UG/L	2 0.06	0.01	0.05	0.06							
DISSOLVED SOLIDS, ROE 180 DEG C	13 763.31	228.27	350.00	1140.00	13	0.84680	-152.799	0.9937	26.78076		
DISSOLVED SOLIDS, SUM OF CONST	26 709.69	281.16	286.00	1300.00	26	0.77952	-124.965	0.9933	33.09275		

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
IRON (FE) • UG/L	5	10.00	50.00			
MANGANESE (Mn) • UG/L	5	0.00	70.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09163530 NAME: COLORADO RIVER BELOW COLORADO-UTAH STATE LINE  
 LAT 39 05'18" LONG 109 06'01" DRAINAGE AREA: 17900 SQ MI ( 46361 SQ KM)

## STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	49	11.19	7.98	0.00	24.50					
STREAMFLOW, MEAN DAILY, (CFS)	196	6014.33	5610.60	1723.00	32420.00					
STREAMFLOW (CUBIC FT/SFC)	50	4838.60	4660.12	1150.00	23100.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	239	1269.93	596.56	395.00	5040.00					
OXYGEN, DISSOLVED P <sub>4</sub> (STANDARD UNITS)	43	9.46	1.67	7.00	12.20					
BICARBONATE ION	238	191.86	58.81	7.20	8.40					
NITRITE + NITRATE, DISSOLVED AS N	13	0.68	0.24	1.00	1.10					
ORTHOPHOSPHATE, DISSOLVED AS P <sub>2</sub>	12	0.01	0.01	0.00	0.03					
HARDNESS, TOTAL	237	432.16	174.13	150.00	1080.00	237	0.23533	133.10181	0.8095	102.45859
CALCIUM, DISSOLVED	54	111.31	36.36	4.00	200.00	54	0.08786	2.25555	0.9033	15.74725
MAGNESIUM, DISSOLVED	54	38.41	13.85	14.00	73.00	54	0.0538	-5.50739	0.9519	4.15077
SODIUM, DISSOLVED	198	117.49	61.77	17.00	373.00	198	0.11804	-30.69145	0.9614	16.59673
POTASSIUM, DISSOLVED	52	4.27	1.20	1.00	7.30	52	0.00275	0.70612	0.8362	0.66443
CHLORIDE, DISSOLVED	238	104.73	85.13	13.00	838.00	238	0.13090	-61.60998	0.9191	33.62142
SULFATE, DISSOLVED	238	384.18	211.40	61.00	1460.00	238	0.340H3	-4R.93584	0.9636	56.63263
SILICA, DISSOLVED, UG/L	52	10.17	1.70	4.10	13.00					
BORON, DISSOLVED, UG/L	6	6R.35	55.26	0.05	130.00					
DISSOLVED SOLIDS, ROE 180 DEG C	227	916.62	493.95	243.00	3980.00	226	0.80898	-119.316	0.9937	55.77616
DISSOLVED SOLIDS, SUM OF CONST	48	826.83	286.00	272.00	1550.00	48	0.76051	-91.44579	0.9716	68.36356

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 365

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%	90%	95%	99%
1990	1730	1650	1420	1250	800	492	453	380	

CONSTITUENT	TOTAL SAMPLES	NO. MINIMUM	MAXIMUM	NO. MINIMUM	MAXIMUM	CONC.
MINOR ELEMENTS:						
ARSENIC (AS) • UG/L						
CADMIUM (Cd) • UG/L						
CHROMIUM (Cr) • UG/L						
COPPER (Cu) • UG/L						
IRON (Fe) • UG/L						
LEAD (Pb) • UG/L						
MANGANESE (Mn) • UG/L						
MERCURY (Hg) • UG/L						
SULFUR (S) • UG/L						

STATISTICAL SUMMARY OF WATER QUALITY DATA  
STATION NUMBER: 09177000 NAME: SAN MIGUEL RIVER AT URAVAN, CO.  
LAT 38 21'26" LONG 108 42'44" DRAINAGE AREA: 1499 SQ MI ( 3882.41 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H
TEMPERATURE, WATER (DEG C)	234	11.16	7.91	-0.50	26.50		
STREAMFLOW, MEAN DAILY (CFS)	167	322.38	452.76	5.00	2550.00		
STREAMFLOW (CUBIC FT/SEC)	45	382.20	572.88	14.00	2830.00		
SPECIFIC CONDUCTANCE (MICROMhos)	237	883.54	416.26	150.00	3000.00		
OXYGEN, DISSOLVED	130	9.84	1.70	6.00	13.40		
P-1 (STANDARD UNITS)	134	151.30	37.65	6.30	8.60		
BICARBONATE ION	27	0.28	.	0.28	0.28		
NITRITE + NITRATE, DISSOLVED AS N	1	0.03	.	0.03	0.03		
BORON, DISSOLVED, ug/l	1	419.12	207.51	110.00	950.00	25	0.42467 40.78117
HARDNESS, TOTAL	26	100.04	42.53	32.00	230.00	26	0.07257 34.97303
CALCIUM, DISSOLVED	27	41.44	27.15	6.10	124.00	26	0.05885 -11.25711
MAGNESIUM, DISSOLVED	24	33.76	20.58	4.00	88.00	24	0.04298 -5.07089
SODIUM, DISSOLVED	24	3.32	2.54	0.80	13.00	24	0.00423 -0.50135
POTASSIUM, DISSOLVED	26	16.08	23.44	2.00	94.00	26	0.03362 -13.88426
CHLORIDE, DISSOLVED	26	343.12	218.46	47.00	870.00	26	0.45798 -65.04727
SULFATE, DISSOLVED	22	7.67	1.37	5.70	11.00		0.9727
SILICA, DISSOLVED	78	647.41	357.62	140.00	1520.00	78	0.72674 2.26269
DISSOLVED SOLIDS, ROE 180 DEG C	24	623.63	324.16	149.00	1350.00	24	0.68388 5.82146
DISSOLVED SOLIDS, SUM OF CONST							0.9795

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM	MAXIMUM			

MINOR ELEMENTS:  
ARSENIC (As), ug/l  
CADMIUM (Cd), ug/l  
COPPER (Cu), ug/l  
IRON (Fe), ug/l  
LEAD (Pb), ug/l  
MANGANESE (Mn), ug/l  
MERCURY (Hg), ug/l  
SELENIUM (Se), ug/l  
ZINC (Zn), ug/l

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09177100 NAME: SAN MIGUEL RIVER BELOW URAVAN, CO.  
 LAT 38°23'08" LONG 109°45'28" DRAINAGE AREA: 1549 SQ MI ( 4011.91 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	246	10.95	7.26	0.00	26.00	
STREAMFLOW, MEAN DAILY, (CFS)	184	339.34	486.45	3.00	2550.00	
STREAMFLOW (CUBIC FT/SEC)	57	308.70	450.79	20.00	2220.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	243	1204.42	637.08	180.00	4120.00	
OXYGEN, DISSOLVED	140	9.90	1.62	6.20	13.90	
PH (STANDARD UNITS)	167	128.07	37.16	58.00	203.00	46
BICARBONATE ION	46	3.08	3.42	0.27	11.00	
NITRATE + NITRATE, DISSOLVED AS N	12	0.01	0.01	0.00	0.01	
ORTHOPHOSPHATE, DISSOLVED AS P	12	0.01	0.01	0.00	0.01	
HARDNESS, TOTAL	45	464.79	223.76	110.00	1200.00	45
CALCIUM, DISSOLVED	45	101.02	42.88	30.00	240.00	45
MAGNESIUM, DISSOLVED	45	51.48	30.37	6.70	150.00	45
SODIUM, DISSOLVED	44	61.29	42.13	7.80	210.00	44
POTASSIUM, DISSOLVED	44	5.40	3.09	1.50	15.00	44
CHLORIDE, DISSOLVED	45	56.43	40.49	4.80	170.00	45
SULFATE, DISSOLVED	45	423.44	253.40	49.00	1300.00	45
SILICA, DISSOLVED	31	7.31	1.37	2.50	10.00	
BORON, DISSOLVED, ug/l	1	90.00	1.37	90.00	90.00	
DISSOLVED SOLIDS, ROE 180 DEG C	87	844.16	513.33	149.00	2950.00	86
DISSOLVED SOLIDS, ROE 180 DEG C DISSOLVED SOLIDS, SUM OF CONST	44	771.95	408.94	165.00	2110.00	44

CONSTITUENT	TOTAL DISSOLVED			MINIMUM MAXIMUM NO. CONC.		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
<b>MINOR ELEMENTS:</b>						
ARSENIC (AS), ug/l	2	0.00	1.00			
COPPER (CU), ug/l	2	0.00	0.00			
IRON (FE), ug/l	2	50.00	200.00			
LEAD (PB), ug/l	2	3.00	4.00			
MANGANESE (Mn), ug/l	2	50.00	120.00			
MERCURY (HG), ug/l	2	0.00	0.00			
SELENIUM (SE), ug/l	2	1.00	5.00			
ZINC (Zn), ug/l	2	30.00	40.00			

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09179500 NAME: UOLORES RIVER AT GATEWAY, CO.  
 LAT 38 40°53" LONG 108 58°47" DRAINAGE AREA: 4347 SQ MI ( 11258.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	SAMPLE STANDARD DEVIATION	REGRESSION COEFFICIENT, R					CONSTANT, B	CORRELATION COEFFICIENT, R <sub>B</sub>		
TEMPERATURE, WATER (DEG C)	192	10.21	7.58	0.00	26.50						
STREAMFLOW, MEAN DAILY, (CFS)	312	811.60	1719.12	10.00	12500.00						
STREAMFLOW (CUBIC FT/SEC)	78	1080.56	1600.55	71.40	6200.00						
SPECIFIC CONDUCTANCE (MICROMHO'S)	396	2796.91	1881.68	277.00	8440.00						
OXYGEN, DISSOLVED	80	9.26	1.88	5.40	13.10						
pH (STANDARD UNITS)	266			6.50	8.50						
BICARBONATE, ION	183	165.61	33.14	102.00	256.00	183	0.01075	136.98501	0.5942	26.72581	
NITRITE + NITRATE, DISSOLVED AS N	37	1.34	0.87	0.23	3.50						
ORTHOPHOSPHATE, DISSOLVED AS P	37	0.03	0.04	0.00	0.18						
HARDNESS, TOTAL	180	409.43	194.08	89.00	114.00	180	0.09503	158.96942	0.8872	89.79385	
CALCIUM, DISSOLVED	180	97.40	38.43	36.00	220.00	180	0.01749	51.30406	0.8246	21.79754	
MAGNESIUM, DISSOLVED	180	41.55	24.53	5.60	144.00	180	0.01209	9.69480	0.8927	11.08825	
SODIUM, DISSOLVED	146	381.84	314.58	12.00	1200.00	146	0.18095	-71.68190	0.9931	36.93095	
POTASSIUM, DISSOLVED	120	17.07	12.46	1.60	69.00	120	0.00661	0.12319	0.9298	4.60451	
CHLORIDE, DISSOLVED	194	633.77	532.57	10.00	2400.00	194	0.28904	-144.775	0.9916	69.09472	
SULFATE, DISSOLVED	190	300.28	178.04	33.00	1020.00	190	0.07855	89.41035	0.8031	106.37815	
SILICA, DISSOLVED	170	8.71	1.92	3.70	19.00						
BORON, DISSOLVED, ug/l	7	82.87	42.67	0.10	130.00						
DISSOLVED SOLIDS, ROE 180 DEG C	137	1531.32	1067.99	171.00	4900.00	137	0.59350	18.817691	0.9938	118.86861	
DISSOLVED SOLIDS, SUM OF CONST	52	1676.94	1065.31	212.00	4680.00	52	0.60146	-15.59896	0.9969	83.98916	

CONSTITUENT	TOTAL DISSOLVED			NO. SAMPLES	MAXIMUM CONC.	MINIMUM CONC.	MAXIMUM CONC.
	NO. SAMPLES	MINIMUM	MAXIMUM				
MINOR ELEMENTS:							
IRON (FE) • ug/l	2	10.40	40.00				
MANGANESE (Mn) • ug/l	2	100.00	100.00				

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09243700 NAME: MIDDLE CREEK NEAR OAK CREEK, CO.  
 LAT 40 23'08" LONG 106 59'33" DRAINAGE AREA: 23.501 SQ MI ( 60.8676 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT A
TEMPERATURE, WATER (0EG C)	30	9.08	7.76	0.00	22.00	
STREAMFLOW, MEAN DAILY, (CFS)	4	0.71	0.52	0.25	1.30	
STREAMFLOW (CUBIC FT/SEC)	33	3.34	5.94	0.09	24.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	30	631.80	144.58	310.00	850.00	
OXYGEN, DISSOLVED	20	9.46	2.03	6.40	13.20	
PH (STANDARD UNITS)	27			7.20	8.80	
BICARBONATE ION	26	277.12	61.85	140.00	372.00	
NITRITE + NITRATE, DISSOLVED AS N	25	0.28	0.57	0.00	2.30	
ORTHOPHOSPHATE, DISSOLVED AS P	24	0.04	0.04	0.00	0.19	
HARDNESS, TOTAL	26	283.08	60.58	150.00	390.00	
CALCIUM, DISSOLVED	26	67.92	13.96	36.00	93.00	
MAGNESIUM, DISSOLVED	26	27.54	6.31	14.00	39.00	
SODIUM, DISSOLVED	26	26.33	9.40	6.50	42.00	
POTASSIUM, DISSOLVED	24	3.52	0.97	1.50	6.00	
CHLORIDE, DISSOLVED	23	4.16	1.51	1.10	8.10	
SULFATE, DISSOLVED	25	106.44	37.96	41.00	210.00	
SILICA, DISSOLVED	25	8.79	1.90	5.60	14.00	
BORON, DISSOLVED, ug/l	25	66.80	32.75	10.00	170.00	
DISSOLVED SOLIDS, SUM OF CONST	23	379.39	93.79	184.00	561.00	
				22	0.58039	23.16207
					0.9439	31.22850

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:

ASBESTIC (ASI), ug/l  
 CADMIUM (CD), ug/l  
 COPPER (CU), ug/l  
 IRON (FE), ug/l  
 LEAD (PB), ug/l  
 MANGANESE (MN), ug/l  
 MERCURY (HG), ug/l  
 SELENIUM (SE), ug/l  
 ZINC (ZN), ug/l

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09244410 NAME: YAMPA RIVER BELOW DIVERSION, NEAR HAYDEN, CO.

LAT 40° 29' 18" LONG 107° 09' 33" DRAINAGE AREA: 1430 SQ MI ( 3703.7 50 KM<sup>2</sup>)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, B	CORRELATION COEFFICIENT, H
TEMPERATURE, WATER (DEG C)	66	7.97	5.95	0.00	20.50			
STREAMFLOW, MEAN DAILY, (CFS)	6	1448.50	2404.50	53.00	5960.00			
STREAMFLOW (CUBIC FT/SEC)	64	1263.61	1938.41	38.90	7300.00			
SPECIFIC CONDUCTANCE (MICROMhos)	65	270.71	108.30	60.00	480.00			
OXYGEN, DISSOLVED	47	9.15	1.59	6.80	12.60			
P-H (STANDARD UNITS)	49			7.00	8.60			
RICARBOONATE ION	47	102.83	41.36	24.00	159.00	47	0.33588	15.67321
NITRITE + NITRATE, DISSOLVED AS N	1	0.00	0.00	0.00	0.00			
ORTHOPHOSPHATE, DISSOLVED AS P <sub>o</sub>	1	0.01	0.01	0.01	0.01			
HARDNESS, TOTAL	45	97.71	39.78	24.00	170.00	45	0.33335	9.82494
CALCIUM, DISSOLVED	45	25.14	9.38	6.60	40.00	45	0.07801	4.57018
MAGNESIUM, DISSOLVED	43	8.36	4.11	1.50	18.00	45	0.03357	-0.48955
SODIUM, DISSOLVED	43	15.68	8.51	1.90	31.00	43	0.06778	-2.19148
POTASSIUM, DISSOLVED	41	2.13	0.75	0.60	3.30	41	0.00495	0.9376
CHLORIDE, DISSOLVED	46	7.52	4.39	0.60	15.00	46	0.02962	0.90672
SULFATE, DISSOLVED	47	33.61	23.64	5.00	110.00	47	0.16854	-0.14001
SILICA, DISSOLVED	42	9.53	3.14	4.90	16.00	42	0.01553	5.47293
BORON, DISSOLVED, ug/l	41	45.90	15.82	2.00	80.00			
DISSOLVED SOLIDS, SUM OF CONST	40	152.90	70.74	37.00	280.00	40	0.56677	5.22854
<hr/>								
TOTAL DISSOLVED								
CONSTITUENT	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.		
<hr/>								
MINOR ELEMENTS:								
ARSENIC (As), ug/l				11	0.00	4.00		
CADIUM(CD), ug/l				12	0.00	6.00		
CHROMIUM (Cr), ug/l				11	0.00	10.00		
COPPER (Cu), ug/l				12	0.00	20.00		
IRON (Fe), ug/l				41	20.00	310.00		
LEAD (Pb), ug/l				12	0.00	30.00		
MANGANESE (Mn), ug/l				12	0.00	40.00		
MERCURY (Hg), ug/l				12	0.00	1.10		
SELENIUM (Se), ug/l				12	0.00	6.00		
ZINC (Zn), ug/l				11	0.00	40.00		

LAT 40° 29'50" LONG 107° 30'34"  
 STATION NUMBER: 09246550  
 NAME: YAMPA RIVER BELOW ELKHORN CREEK NEAR CRAIG, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY					
		SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	40	8.60	7.31	0.00	22	0.27388	0.8917
STREAMFLOW, MEAN DAILY, (CFS)	12	1074.33	1553.59	104.00	5140.00		
STREAMFLOW (CUBIC FT/SEC)	5	1942.60	2410.54	123.00	5900.00		
SPECIFIC CONDUCTANCE (MICROMHOHS)	40	328.72	129.68	80.00	650.00		
OXYGEN, DISSOLVED PH (STANDARD UNITS)	36	8.99	1.96	5.90	13.00		
BICARBONATE, ION	38	120.67	40.32	32.00	190.00	0.27388	0.8917
NITRITE + NITRATE, DISSOLVED AS N	39	0.01	0.01	0.01	0.01	0.31440	0.9641
HARDNESS, TOTAL	39	118.67	42.81	30.00	220.00	0.31440	0.9641
CALCIUM, DISSOLVED	39	29.61	9.52	8.10	47.00	0.06834	7.20252
MAGNESIUM, DISSOLVED	39	10.84	4.70	2.00	24.00	0.03423	0.9555
SODIUM, DISSOLVED	39	21.28	11.60	3.30	66.00	0.08185	-0.55752
POTASSIUM, DISSOLVED	39	2.65	1.40	0.80	9.30	0.00477	0.9190
CHLORIDE, DISSOLVED	39	9.32	4.80	1.40	22.00	0.02945	0.4467
SULFATE, DISSOLVED	39	51.40	33.08	8.40	170.00	0.22111	1.0582
SILICA, DISSOLVED	38	8.11	2.77	3.20	15.00		
BORON, DISSOLVED, ug/l	39	56.15	23.44	4.00	120.00		
DISSOLVED SOLIDS, SUM OF CONST	38	193.47	79.04	48.00	407.00	0.57727	0.12845

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS) • ug/l				11	0.00	1.00
CADMIUM (CD) • ug/l				11	0.00	3.00
CHROMIUM (CR) • ug/l				11	0.00	10.00
COPPER (CU) • ug/l				12	0.00	20.00
IRON (FE) • ug/l				39	20.00	320.00
LEAD (PB) • ug/l				12	0.00	22.00
MANGANESE (MN) • ug/l				12	0.00	50.00
MERCURY (HG) • ug/l				12	0.00	2.20
SELENIUM (SF) • ug/l				12	0.00	2.00
ZINC (ZN) • ug/l				12	0.00	20.00

LAT 40° 29' 04" LONG 107° 36' 23"

STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09247600

NAME: YAMPA RIVER BELOW CRAIG, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY								
	SAMPLE SIZE	M.FAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, R	CORRELATION COEFFICIENT	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	39	9.59	7.55	0.00	24				
STREAMFLOW CUBIC FT/SEC	41	1513.31	2420.87	10.70	8800.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	39	319.05	135.63	78.00	610.00				
OXYGEN, DISSOLVED	34	9.79	1.41	6.90	12.90				
P+ (STANDARD UNITS)	39			7.10	8.90				
BICARBONATE ION	38	118.71	47.93	27.00	220.00	38	0.32201	16.40490	0.9218
NITRITE + NITRATE, DISSOLVED AS N	1	0.01	0.01	0.01	0.01				
HARDNESS, TOTAL	37	116.95	47.54	25.00	220.00	37	0.33562	10.78950	0.9799
CALCIUM, DISSOLVED	38	28.73	10.94	6.70	47.00	38	0.07450	5.05862	0.9345
MAGNESIUM, DISSOLVED	37	10.76	5.08	1.90	25.00	37	0.03538	-0.42852	3.9474
SODIUM, DISSOLVED	37	22.99	13.04	2.60	62.00	37	0.06674	-4.44771	0.9661
POTASSIUM, DISSOLVED	38	2.29	0.89	0.70	4.10	38	0.00492	0.72677	1.33115
CHLORIDE, DISSOLVED	38	9.03	4.56	0.90	16.00	38	0.02290	1.75550	0.9235
SULFATE, DISSOLVED	38	57.16	35.24	6.50	180.00	38	0.23053	-16.07729	0.07310
SILICA, DISSOLVED	36	7.26	2.66	0.90	12.00				
BORON, DISSOLVED, UG/L	38	65.53	31.51	20.00	190.00				
DISSOLVED SOLIDS, SUM OF CONST	36	194.94	87.38	44.00	393.00	36	0.61303	2.47109	0.58138

CONSTITUENT	TOTAL				DISSOLVED			
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.	CONC.	
MINOR ELEMENTS:								
ARSENIC (AS), UG/L								
CADMIUM (CD), UG/L								
CHROMIUM (CR), UG/L								
COPPER (CU), UG/L								
IRON (FE), UG/L								
LEAD (PB), UG/L								
MANGANESE (MN), UG/L								
MERCURY (HG), UG/L								
SELENIUM (SF), UG/L								
ZINC (ZN), UG/L								

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09249750

LAT 40° 26' 14" LONG 107° 38' 50"

NAME: WILLIAMS FORK AT MOUTH, NEAR HAMILTON, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

## CONSTITUENT CONSTITUENT (MG/L OR UNIT SHOWN)

CONSTITUENT	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	REGRESSION SUMMARY		
					SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B
TEMPERATURE, WATER (DEG C)	38	9.93	7.98	0.00	26.00		
STREAMFLOW, MEAN DAILY, (CFS)	5	44.08	28.77	1.40	82.00		
STREAMFLOW (CUBIC FT/SEC)	46	156.33	284.53	5.80	1230.00		
SPECIFIC CONDUCTANCE (MICROMHOES)	40	412.17	140.42	128.00	860.00		
OXYGEN, DISSOLVED	32	9.78	1.51	6.70	13.20		
pH (STANDARD UNITS)	41			7.10	8.70		
BICARBONATE ION	39	191.74	56.95	82.00	330.00	38	0.39173
NITRITE + NITRATE, DISSOLVED AS N	1	0.01	0.01	0.01			
HARDNESS, TOTAL	39	199.69	65.05	74.00	340.00	39	0.43924
CALCIUM, DISSOLVED	39	43.92	11.16	20.00	61.00	39	0.06416
MAGNESIUM, DISSOLVED	39	21.79	9.96	5.90	53.00	39	0.06845
SODIUM, DISSOLVED	37	18.58	12.60	3.40	78.00	37	0.07669
POTASSIUM, DISSOLVED	37	2.02	0.98	0.70	5.10	36	0.00499
CHLORIDE, DISSOLVED	39	4.03	2.69	0.50	16.00	38	0.01630
SULFATE, DISSOLVED	39	70.21	40.81	14.00	220.00	39	0.25238
SILICA, DISSOLVED	38	10.84	2.42	2.60	15.00		
BORON, DISSOLVED, ug/l	37	46.22	21.39	20.00	130.00		
DISSOLVED SOLIDS, ROE 180 DEG C	2	210.00	25.46	192.00	228.00	2	0.52941
DISSOLVED SOLIDS, SUM OF CONST	34	258.18	87.83	96.00	421.00	34	0.71995

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS) • ug/l				9	0.00	2.00
CADMIUM (CD) • ug/l				10	0.00	2.00
CHROMIUM (CR) • ug/l				8	0.00	20.00
COPPER (CU) • ug/l				10	0.00	4.00
IRON (FE) • ug/l				37	10.00	250.00
LEAD (PR) • ug/l				10	0.00	4.00
MANGANESE (MN) • ug/l				10	0.00	50.00
MERCURY (HG) • ug/l				10	0.00	0.00
SELENIUM (SE) • ug/l				10	0.00	1.00
ZINC (ZN) • ug/l				10	0.00	30.00

LAT 40 17°25" LONG 107 47°22"

STATION NUMBER: 09250400 DRAINAGE AREA: 40.001 SQ MI (103.603 SQ KM)

STATISTICAL SUMMARY OF WATER QUALITY DATA  
NAME: GOOD SPRING CREEK AT AXIAL, CO.STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, C <sub>H</sub>	CORRELATION COEFFICIENT, C <sub>H</sub>	REGRESSION SUMMARY	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	85	8.81	7.27	0.00	25.00						
STREAMFLOW, MFAN DAILY, (CFS)	9	0.54	0.44	0.17	1.40						
STREAMFLOW (CUBIC FT/SEC)	93	5.63	41.47	0.02	400.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	64	1619.06	230.04	1100.00	2300.00						
OXYGEN, DISSOLVED	28	9.23	1.53	6.30	14.00						
PH (STANDARD UNITS)	4.8										
RICARONATE, ION	31	514.65	55.99	386.00	628.00	31	0.12723	317.23953	0.5739	46.63635	
NITRITE + NITRATE, DISSOLVED AS N	31	0.28	0.28	0.01	1.00						
ORTHOPHOSPHATE, DISSOLVED AS P	30	0.01	0.01	0.00	0.04						
HARDNESS, TOTAL	31	841.94	119.90	590.00	1200.00	31	0.38721	241.12945	0.8156	70.56321	
CALCIUM, DISSOLVED	31	113.52	15.47	84.00	160.00	31	0.02424	75.91085	0.3958	14.44586	
MAGNESIUM, DISSOLVED	31	135.16	22.1	83.00	190.00	31	0.07669	16.17484	0.8528	12.06598	
SODIUM, DISSOLVED	31	68.68	18.26	38.00	110.00	31	0.05961	-23.81988	0.8245	10.50924	
POTASSIUM, DISSOLVED	31	11.45	1.46	6.90	14.00	31	0.0206	8.26116	0.3567	1.38324	
CHLORIDE, DISSOLVED	31	17.87	5.04	11.00	34.00	31	0.00981	2.64497	0.4913	4.46916	
SULFATE, DISSOLVED	32	511.56	97.36	330.00	830.00	32	0.33447	-7.80644	0.8539	51.51296	
SILICA, DISSOLVED, UG/L	30	12.36	1.75	9.70	15.00						
BORON, DISSOLVED, UG/L	24	233.33	55.30	140.00	360.00						
DISSOLVED SOLIDS, ROE 180 DEG C	1	1360.00	1360.00	1360.00	1360.00	1	0.00000	1360	0.0000	0.0000	
DISSOLVED SOLIDS, SUM OF CONST	30	1121.20	166.73	797.00	1620.00	30	0.56523	246.97192	0.8656	84.96484	

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE						SAMPLE SIZE = 9/4		
CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	90%	95%	99%
	2140	2000	1920	1720	1400	252	207	192

DISSOLVED				DISSOLVED					
MINOR ELEMENTS:	ARSENIC (AS) • UG/L	CAIDIUM (CD) • UG/L	CHROMIUM (CR) • UG/L	IRON (FE) • UG/L	LEAD (PB) • UG/L	MANGANESE (MN) • UG/L	MERCURY (HG) • UG/L	SELENIUM (SE) • UG/L	ZINC (ZN) • UG/L
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
ARSENIC (AS) • UG/L	11	0.00	5.00	11	0.00	2.00	1	0.00	0.00
CAIDIUM (CD) • UG/L	11	0.00	0.00	1	0.00	0.00	1	0.00	1.00
CHROMIUM (CR) • UG/L	1	0.00	0.00	1	0.00	0.00	1	0.00	1.00
IRON (FE) • UG/L	30	10.90	200.00	30	0.00	11.00	12	0.00	180.00
LEAD (PB) • UG/L	12	0.00	1.00	31	10.00	10.00	11	0.00	0.50
MANGANESE (MN) • UG/L	31	10.00	10.00	11	0.00	3.00	9	1.00	3.00
MERCURY (HG) • UG/L	11	0.00	0.00	12	0.00	20.00			
SELENIUM (SE) • UG/L									
ZINC (ZN) • UG/L									

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09250600

NAME: WILSON CREEK NEAR AXIAI, CO.

LAT 40 18'56" LONG 107 47'50"

DRAINAGE AREA: 20.101 SQ MI (52.061 SQ KM)

## STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF COEFFICIENT	STANDARD ERROR OF ESTIMATE
	SAMPLE MEAN	STANDARD DEVIATION	R					REGRESSION COEFFICIENT R	CONSTANT	R <sup>2</sup>		
TEMPERATURE, WATER (DEG C)	56	8.88	6.62	0.00	21.50						0.7958	39.22178
STREAMFLOW (CUBIC FT/SEC)	53	1.48	2.95	0.12	18.00							
SPECIFIC CONDUCTANCE (MICROMHOS)	42	1045.48	312.35	860.00	2600.00							
OXYGEN, DISSOLVED	JB	9.72	1.35	7.00	12.80							
pH (STANDARD UNITS)	42			7.50	8.50							
BICARBONATE ION	40	458.45	63.93	280.00	536.00	40	0.15005	181.57765				
NITRATE + NITRATE, DISSOLVED AS N	40	0.44	0.24	0.13	1.10							
ORTHOPHOSPHATE, DISSOLVED AS P	39	0.01	0.01	0.00	0.06							
HARDNESS, TOTAL	41	704.39	126.99	350.00	880.00	41	0.33353	90.11986			0.8814	60.75288
CALCIUM, DISSOLVED	41	104.34	13.01	70.00	120.00	41	0.02861	51.65371			0.7378	8.89381
MAGNESIUM, DISSOLVED	41	107.76	24.27	43.00	140.00	41	0.06317	-8.58889			0.8734	11.97095
SODIUM, DISSOLVED	41	159.56	28.68	70.00	190.00	41	0.01162	27.65319			0.8380	15.84914
POTASSIUM, DISSOLVED	41	9.40	1.27	5.70	13.00	41	0.00261	4.59117			0.6924	0.92554
CHLORIDE, DISSOLVED	41	148.93	27.50	58.00	190.00	41	0.04564	64.81773			0.5568	23.13615
SULFATE, DISSOLVED	41	438.54	110.81	150.00	600.00	41	0.29591	-88.04133			0.8659	56.13920
SILICA, DISSOLVED	40	13.76	2.05	8.50	17.00	40	0.00347	7.35288			0.5718	1.70426
BORON, DISSOLVED, ug/l	36	198.61	46.67	0.00	288.00							
DISSOLVED SOLIDS, SUM OF CONST	39	1222.74	209.93	577.00	1450.00	39	0.55844	188.32531			0.9091	88.64645

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

SAMPLE SIZE = 1138

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	SAMPLE SIZE = 1138		
					90%	95%	99%
2560	2100	2010	1940	1750	392	244	181

CONSTITUENT	NO. SAMPLES	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	DISSOLVED	
					TOTAL	MAXIMUM CONC.

## MINOR ELEMENTS:

ARSENIC (AS), ug/l	1.4	0.00	1.00
CADMIUM (CD), ug/l	1.5	0.00	2.00
CHROMIUM (CR), ug/l	3	0.00	0.00
COPPER (CU), ug/l	1.3	0.00	2.30
IRON (FE), ug/l	4.1	0.00	280.00
LEAD (Pb), ug/l	1.5	0.00	1.20
MANGANESE (Mn), ug/l	4.2	10.00	11.00
MERCURY (HG), ug/l	1.5	0.00	1.50
SELENIUM (SE), ug/l	1.3	2.00	2.00
ZINC (Zn), ug/l	1.4	0.00	30.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09251000 NAME: TAMPA RIVER NEAR MAYRELL, CO.

LAT 40° 30' 10" LONG 108° 01' 45"

DRAINAGE AREA: 3410 SQ MI (8831.9 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE MEAN	STANDARD DEVIATION	REGRESSION COEFFICIENT, R				CONSTANT, B	CORRELATION COEFFICIENT, R <sub>B</sub>	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	141	9.16	8.23	0.00	24.50				
STREAMFLOW, MEAN DAILY (CFS)	655	1744.46	2426.56	35.50	1265.00				
STREAMFLOW (CUBIC FT/SEC)	57	1544.60	2781.43	31.80	1360.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	703	418.09	175.58	100.00	1100.00				
OXYGEN, DISSOLVED	83	9.66	1.46	6.80	13.80				
P-4 (STANDARD UNITS)	697	150.08	51.59	40.00	283.00	659	0.271831	33.70273	0.9501
BICARBONATE, 10N	661	0.25	0.30	0.00	1.00				16.10023
NITRITE + NITRATE, DISSOLVED AS N	44	0.02	0.04	0.00	0.24				
ORTHOPHOSPHATE, DISSOLVED AS P <sub>1</sub>	41	145.30	53.45	37.00	380.00	662	0.29155	23.83499	0.9611
HARDNESS, TOTAL	604	35.47	11.11	6.00	104.00	495	0.06066	9.63102	0.9229
CALCIUM, DISSOLVED	497	14.59	6.24	1.70	37.00	495	0.03654	-0.11724	4.28192
MAGNESIUM, DISSOLVED	500	33.72	19.40	3.90	160.00	498	0.1094	-13.03136	0.9358
SODIUM, DISSOLVED	45H	2.60	0.96	0.80	7.80	456	0.00347	1.0.12530	0.79508
POTASSIUM, DISSOLVED	665	17.73	13.60	1.00	130.00	663	0.06397	-8.51786	0.6071
CHLORIDE, DISSOLVED	664	68.89	39.75	8.10	247.00	662	0.20875	7.62886	0.8287
SULFATE, DISSOLVED	499	9.67	3.56	2.00	19.00				
SILICA, DISSOLVED	215	67.16	43.43	0.00	430.00				
BORON, DISSOLVED, UG/L	622	258.86	107.68	64.00	677.00	620	0.60478	7.05523	0.9909
DISSOLVED SOLIDS, ROE 140 DEG C	122	283.07	117.92	51.00	691.00	121	0.64144	-6.92215	0.9905
DISSOLVED SOLIDS, SUM OF CONST									16.27671

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 8089

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C. THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

TOTAL

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
				153	131	110

DISSOLVED

MINOR ELEMENTS:  
ARSENIC (AS), UG/L  
CADMIUM (CD), UG/L  
CHROMIUM (CR), UG/L  
COPPER (CU), UG/L  
IRON (FE), UG/L  
LEAD (Pb), UG/L  
MANGANESE (MN), UG/L  
MERCURY (HG), UG/L  
SELENIUM (SE), UG/L  
ZINC (ZN), UG/L

16	0.00	2.00
17	0.00	3.00
14	0.00	10.00
17	1.00	13.00
17	10.00	370.00
17	0.00	23.00
49	0.00	50.00
16	0.00	0.20
17	0.00	2.00
17	0.00	60.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09259700 NAME: LITTLE SNAKE RIVER NEAR BAGGS, WY.  
 LAT 41° 00' 11" LONG 107° 55' 11" DRAINAGE AREA: 3n20 Sq MI (1821.8 Sq KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	113	9.06	7.90	0.00 - 26.50		
STREAMFLOW, MEAN DAILY (CFS)	99	684.98	1195.29	0.20 - 4800.00		
STREAMFLOW (CUBIC FT/SEC)	19	1046.54	1266.51	0.69 - 3400.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	105	514.49	391.08	120.00 - 2960.00		
OXYGEN, DISSOLVED	23	9.42	1.19	7.30 - 11.90		
pH (STANDARD UNITS)	106			7.10 - 8.80		
BICARBONATE ION	97	168.63	66.19	46.00 - 310.00	84	0.10811
NITRATE + NITRATE, DISSOLVED AS N	2	0.09	0.11	0.01 - 0.17		
ORTHOPHOSPHATE, DISSOLVED AS P	1	0.00	0.00	0.00 - 0.00		
HARDNESS, TOTAL	97	146.31	62.83	40.00 - 404.00	84	0.12638
CALCIUM, DISSOLVED	97	38.57	13.83	9.90 - 78.00	84	0.02186
MAGNESIUM, DISSOLVED	97	12.05	7.81	0.30 - 51.00	84	0.01743
SODIUM, DISSOLVED	97	48.51	76.37	3.10 - 570.00	84	0.19833
POTASSIUM, DISSOLVED	97	2.35	1.10	0.60 - 6.70	84	0.00230
CHLORINE, DISSOLVED	97	19.40	42.03	0.00 - 294.00	84	0.10244
SULFATE, DISSOLVED	97	83.38	113.81	6.60 - 909.00	84	0.27946
SILICA, DISSOLVED	97	13.50	4.74	1.70 - 26.00	84	-0.23854
BORON, DISSOLVED, UG/L	80	58.88	45.06	0.00 - 230.00		
DISSOLVED SOLIDS, ROE 1AO DEG C	79	334.10	282.94	89.00 - 2050.00	79	0.65995
DISSOLVED SOLIDS, SUM OF CONST	67	272.93	159.16	58.00 - 825.00	54	0.60886
TOTAL DISSOLVED						
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L				1	1.00	1.00
CALIUM(CD), UG/L				2	0.00	1.00
CHROMIUM (CR), UG/L				1	5.00	5.00
COPPER (CU), UG/L				2	2.00	2.00
IRON (FE), UG/L				8	20.00	310.00
LEAD (PB), UG/L				2	0.00	7.00
MANGANESE (MN), UG/L				2	0.00	20.00
MERCURY (HG), UG/L				2	0.00	0.00
SELENIUM (SE), UG/L				2	0.00	1.00
ZINC (ZN), UG/L				2	10.00	10.00

LAT 40° 36' 27" LONG 108° 20' 11"

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09259950

NAME: LITTLE SNAKE RIVER ABOVE LILLY, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	
TEMPERATURE, WATER (DEG C)	131	13.71	6.79	0.00	28-50		
STREAMFLOW, MEAN DAILY, (CFS)	716	546.11	869.59	0.03	6806.00		
STREAMFLOW (CUBIC FT/SEC)	70	729.77	1053.53	3.60	4580.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	666	686.14	402.74	154.00	3150.00		
pH (STANDARD UNITS)	657			7.00	8.60		
BICARBONATE ION	661	197.86	60.61	76.00	661	0.11547	118.52195
HARDNESS, TOTAL	660	188.50	110.79	64.00	1340.00	0.22369	34.88247
CALCIUM, DISSOLVED	454	55.26	36.45	17.00	473.00	0.06909	7.27545
MAGNESIUM, DISSOLVED	453	12.95	6.78	1.60	54.00	0.01191	4.67606
SODIUM, DISSOLVED	462	82.73	66.48	5.10	595.00	0.15994	-28.35324
POTASSIUM, DISSOLVED	397	3.19	1.98	0.60	12.00	0.00388	0.47678
CHLORIDE, DISSOLVED	663	28.77	28.43	0.60	375.00	0.06055	-12.86551
SULFATE, DISSOLVED	661	159.69	157.54	8.10	1420.00	0.36948	-9.94273
SILICA, DISSOLVED	460	17.10	3.76	7.60	31.00	0.00270	15.19780
BORON, DISSOLVED, UG/L	203	89.80	50.81	0.00	500.00		
DISSOLVED SOLIDS, ROE 180 DEG C	645	454.13	293.87	108.00	2180.00	0.72304	-36.70091
DISSOLVED SOLIDS, SUM OF CONST	11	647.73	644.64	139.00	2330.00	0.84944	-130.749

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 5190
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25% 50% 75% 90% 95% 99%
1680	1350	1120	774	574 342 209 144 156

CONSTITUENT	TOTAL			DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.		
MINOR ELEMENTS:							
IRON (FE) • UG/L	93	0.00	450.00				

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09260000 NAME: LITTLE SNAKE RIVER NEAR LITLY, CO.

LAT 40 32°50" LONG 108 25°25" DRAINAGE AREA: 3730 SQ MI (9660.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT H
TEMPERATURE, WATER (DEG C)	141	8.61	8.00	0.00	28.00	
STREAMFLOW, MEAN DAILY (CFS)	330	555.74	1029.10	0.03	6806.00	
STREAMFLOW (Cubic Ft/SFC)	112	711.79	1113.80	1.10	4360.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	378	670.88	345.80	140.00	1850.00	
OXYGEN, DISSOLVED	86	8.76	1.55	4.70	12.20	
pH (STANDARD UNITS)	365			7.00	8.60	
BICARBONATE ION	333	202.84	60.38	67.00	462.00	332
NITRATE + NITRATE, DISSOLVED AS N	48	0.17	0.19	0.00	0.90	28.00
ORTHOPHOSPHATE, DISSOLVED AS P	46	0.02	0.01	0.00	0.06	114.66262
HARDNESS, TOTAL	334	191.52	86.66	58.00	930.00	333
CALCIUM, DISSOLVED	326	53.40	23.64	16.00	301.00	326
MAGNESIUM, DISSOLVED	325	13.78	5.86	2.90	44.00	325
SODIUM, DISSOLVED	326	78.55	58.79	5.10	380.00	326
POTASSIUM, DISSOLVED	321	3.10	1.65	0.60	10.00	321
CHLORIDE, DISSOLVED	337	28.37	25.21	1.00	170.00	336
SULFATE, DISSOLVED	335	154.39	125.33	12.00	885.00	334
SILICA, DISSOLVED	331	16.87	3.97	8.40	31.00	331
BORON, DISSOLVED, UG/L	103	74.43	44.93	0.00	220.00	103
DISSOLVED SOLIDS, ROE 180 DEG C	282	460.74	247.71	96.00	1600.00	282
DISSOLVED SOLIDS, ROE 180 DEG C DISSOLVED SOLIDS, SUM OF CONST	100	395.68	213.51	91.00	1410.00	100

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

TOTAL

NO. SAMPLES

MINIMUM CONC.

MAXIMUM CONC.

SAMPLES

SAMPLE CONC.

DISSOLVED

MINIMUM CONC.

MAXIMUM CONC.

SAMPLE SIZE = 830

MINOR ELEMENTS:  
 ARSENIC (AS) • UG/L  
 CADMIUM (CD) • UG/L  
 CHROMIUM (CR) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (Pb) • UG/L  
 MANGANESE (MN) • UG/L  
 MERCURY (HG) • UG/L  
 SELENIUM (SE) • UG/L  
 ZINC (ZN) • UG/L

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09304900 NAME: WHITE RIVER BELOW NEEKFR. CO.  
 LAT 40 00'48" LONG 108 05'33" DRAINAGE AREA: 1024 SQ MI (2652.16 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION					REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	88	9.61	6.71	0.0	25.00					
STREAMFLOW, MEAN DAILY, (CFS)	13	574.3 <sup>b</sup>	709.38	0.50	2730.00					
STREAMFLOW, (CUBIC FT/SEC)	81	612.4 <sup>b</sup>	674.91	115.00	3890.00					
SPECIFIC CONDUCTANCE (MICROMHOS)	82	635.1 <sup>b</sup>	177.79	220.00	1100.00					
OXYGEN, DISSOLVED	43	10.04	1.97	6.50	13.60					
PH (STANDARD UNITS)	61		6.30	8.70						
BICARBONATE, ION	54	179.3 <sup>b</sup>	37.82	107.00	320.00	50	0.19047	59.87790	0.7976	23.73460
HARDNESS, TOTAL	54	260.1 <sup>b</sup>	63.02	120.00	440.00	51	0.37996	21.61118	0.9455	21.26404
CALCIUM, DISSOLVED	54	70.85	15.63	33.00	110.00	50	0.09198	11.5478	0.9435	5.42451
MAGNESIUM, DISSOLVED	54	19.98	6.24	7.90	40.00	51	0.03504	-1.98395	0.8855	2.99230
SODIUM, DISSOLVED	54	34.42	14.24	6.60	83.00	51	0.08134	-18.20666	0.9166	5.90038
POTASSIUM, DISSOLVED	54	1.99	0.78	1.00	6.00					
CHLORIDE, DISSOLVED	54	32.05	12.95	4.80	66.00	51	0.01436	-15.06751	0.8996	5.87595
SULFATE, DISSOLVED	53	132.51	46.59	30.00	260.00	50	0.27503	-40.50114	0.9333	17.3HH64
SILICA, DISSOLVED	42	14.40	2.65	5.80	20.00					
BORON, DISSOLVED, ug/l	36	40.28	22.36	10.00	120.00					
DISSOLVED SOLIDS, ROE 100 DEG C	27	381.07	108.44	160.00	524.00	25	0.70687	-20.66739	0.9618	31.50314
DISSOLVED SOLIDS, SUM OF CONST	41	403.61	118.60	146.00	734.00	38	0.67189	-27.16262	0.9532	37.70418

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 62		
CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	DISOLVENT	
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5*	10%	25%	75%	90%
	706	699	675	652	634	573

CONSTITUENT	TOTAL	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:				
ARSENIC (As), ug/l		27	0.00	3.00
CADMIUM (Cd), ug/l		9	0.00	1.00
CHROMIUM (Cr), ug/l		7	0.00	10.00
COPPER (Cu), ug/l		9	0.00	5.00
IRON (Fe), ug/l		37	0.00	120.00
LEAD (Pb), ug/l		9	0.00	5.00
MANGANESE (Mn), ug/l		27	0.00	170.00
MERCURY (Hg), ug/l		10	0.00	0.30
SELENIUM (Se), ug/l		23	0.00	4.00
ZINC (Zn), ug/l		10	0.00	60.00

LAT 39°49'34" LONG 108°10'57" DRAINAGE AREA: 177.001 SQ MI ( 458.433 SQ KM)

STATION NUMBER: 09306007 NAME: PICEANCE CREEK BELOW RIO BLANCO, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY							
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	SAMPLE COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	104	10.06	6.16	0.00	25.00			
STREAMFLOW, MEAN DAILY, (CFS)	18	10.46	9.38	1.10	36.00			
STREAMFLOW (CUBIC FT/SEC)	88	14.19	17.79	2.18	88.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	97	1074.63	128.36	625.00	1410.00			
OXYGEN, DISSOLVED	93	22.31	112.23	6.80	1090.00			
P <sub>t</sub> (STANDARD UNITS)	92			6.90	8.70			
BICARBONATE ION	94	544.48	99.07	317.00	950.00	94	0.38119	133.26312
NITRATE + NITRATE, DISSOLVED AS N	76	0.33	0.35	0.00	2.50			
ORTHOPHOSPHATE, DISSOLVED AS P	76	0.02	0.04	0.00	0.36			
HARDNESS, TOTAL	77	363.25	31.05	270.00	440.00	77	0.18692	161.19699
CALCIUM, DISSOLVED	77	68.32	8.60	22.00	81.00	77	0.02559	40.63397
MAGNESIUM, DISSOLVED	77	46.58	4.83	33.00	57.00	77	0.02959	14.60134
SODIUM, DISSOLVED	77	124.22	19.49	47.00	160.00	77	0.13390	-20.51635
POTASSIUM, DISSOLVED	78	3.42	1.92	2.20	19.00			
CHLORIDE, DISSOLVED	77	14.97	2.42	9.00	24.00	77	0.00989	4.28346
SULFATE, DISSOLVED	77	166.36	17.98	110.00	210.00	77	0.10234	55.73984
SILICA, DISSOLVED	76	15.46	1.52	12.00	18.00	76	0.00584	9.15970
BORON, DISSOLVED, UG/L	72	207.08	41.16	110.00	290.00			
DISSOLVED SOLIDS, ROE 180 DEG C	1	653.00	653.00	653.00	1	0.00000	653.00000	0.00000
DISSOLVED SOLIDS, SUM OF CONST	75	697.59	67.72	502.00	829.00	75	0.50333	153.09149

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 870			
CONSTITUENT	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.	DISOLVED
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%	90%
	1290	1230	1180	1120	1070	994	874

MINOR ELEMENTS:							
ARSENIC (As), UG/L							
CADMIUM (Cd), UG/L							
CHROMIUM (Cr), UG/L							
COPPER (Cu), UG/L							
IRON (Fe), UG/L							
LEAD (Pb), UG/L							
MANGANESE (Mn), UG/L							
MERCURY (Hg), UG/L							
SELENIUM (Se), UG/L							
ZINC (Zn), UG/L							

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 093n6022 NAME: STEWART GULCH AT WEST FORK, NEAR RIO BLANCO, CO.

LAT 39 48'48" LONG 108 11'00" DRAINAGE AREA: 44.001 SQ MI (113.963 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT H	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	63	9.44	3.58	1.00	18.00		
STREAMFLOW, MEAN DAILY, (CFS)	7	2.07	0.46	1.30	2.70		
STREAMFLOW (CUBIC FT/SEC)	58	1.93	1.00	0.02	8.17		
SPECIFIC CONDUCTANCE (MICROMHOS)	60	1349.17	98.48	1000.00	1750.00		
OXYGEN, DISSOLVED	56	9.63	1.17	6.40	12.10		
PH (STANDARD UNITS)	62			7.40	8.80		
BICARBONATE ION	61	491.84	54.77	299.00	782.00	60	0.4013
NITRITE + NITRATE, DISSOLVED AS N	59	1.40	0.28	0.12	1.90		
ORTHOPHOSPHATE, DISSOLVED AS P	61	549.51	0.01	0.00	0.05		
MARINESS, TOTAL	61	549.51	21.79	460.00	610.00		
CALCIUM, DISSOLVED	61	93.43	4.46	73.00	99.00		
MAGNESIUM, DISSOLVED	61	76.64	4.34	64.00	95.00		
SODIUM, DISSOLVED	61	124.00	21.62	24.00	250.00	60	0.5010
POTASSIUM, DISSOLVED	61	1.62	0.54	1.10	4.80		19.02362
CHLORIDE, DISSOLVED	61	7.16	1.38	5.80	16.00	60	0.4897
SULFATE, DISSOLVED	61	367.05	24.38	320.00	490.00		1.22612
SILICA, DISSOLVED	61	15.20	1.05	11.00	17.00		
BORON, DISSOLVED, UG/L	58	95.09	66.04	30.00	53.00		
DISSOLVED SOLIDS, ROE 180 DEG C	1	929.00	*	929.00	1	0.0000	0.00000
DISSOLVED SOLIDS, SUM OF CONST	61	935.74	51.01	703.00	1160.00	60	0.2727

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = H43

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%	90%	95%	99%
1410	1400	1390	1360	1300	1230	1190	1150	1100	

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS) • UG/L					0.00	4.00
CADMIUM (CD) • UG/L					0.00	7.00
CHROMIUM (CR) • UG/L					0.00	20.00
COPPER (CU) • UG/L					0.00	8.00
IRON (FE) • UG/L					0.00	130.00
LEAD (PB) • UG/L					0.00	60.00
MANGANESE (MN) • UG/L					0.00	0.40
MERCURY (HG) • UG/L					0.00	2.00
SELENIUM (SE) • UG/L					0.00	370.00
ZINC (ZN) • UG/L					0.00	

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306025

DRAINAGE AREA: 14,201 SQ MI (36,7406 SQ KM)

NAME: WEST FORK STEWART GUILCH NEAR RIO BLANCO, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	45	14.90	8.26	0.00	30.00	
STREAMFLOW, MEAN DAILY, (CFS)	24	0.07	0.22	0.01	1.10	
STREAMFLOW (CUBIC FT/SEC)	25	0.05	0.04	0.01	0.15	
SPECIFIC CONDUCTANCE (MICROMHOS)	40	1550.50	250.95	360.00	2070.00	
OXYGEN, DISSOLVED	35	8.87	1.49	5.00	11.80	
P-4 (STANDARD UNITS)	40			7.40	8.90	
BICARBONATE ION	40	504.30	95.16	151.00	757.00	4.0
NITRITE + NITRATE, DISSOLVED AS N	40	0.11	0.23	0.00	1.30	
ORTHOPHOSPHATE, DISSOLVED AS P	40	0.02	0.04	0.00	0.26	
HARDNESS, TOTAL	40	611.75	98.63	140.00	820.00	4.0
CALCIUM, DISSOLVED	40	87.60	16.63	28.00	130.00	4.0
MAGNESIUM, DISSOLVED	40	95.32	15.98	16.00	120.00	4.0
SODIUM, DISSOLVED	40	152.85	26.96	24.00	220.00	4.0
POTASSIUM, DISSOLVED	40	3.28	2.29	0.90	1.20	
CHLORIDE, DISSOLVED	40	10.29	3.81	5.70	29.00	4.0
SULFATE, DISSOLVED	40	476.00	82.18	70.00	590.00	4.0
SILICA, DISSOLVED	38	13.97	2.99	5.40	18.00	3.8
BORON, DISSOLVED, UG/L	38	102.11	27.62	40.00	160.00	
DISSOLVED SOLIDS, SUM OF CONST	38	1090.74	180.24	239.00	1450.00	3.8

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
1% 5%	13	10%	25%	50%	75%	90%
1760 1700	1660	1610	1570	1510	1450	1400
						1240

MINOR ELEMENTS:  
 ARSENIC (AS), UG/L  
 CADMIUM (Cd), UG/L  
 CHROMIUM (Cr), UG/L  
 COPPER (Cu), UG/L  
 IRON (Fe), UG/L  
 LEAD (Pb), UG/L  
 MANGANESE (Mn), UG/L  
 MERCURY (Hg), UG/L  
 SELENIUM (Se), UG/L  
 ZINC (Zn), UG/L

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306058 NAME: WILLOW CREEK NEAR RIO BLANCO, CO.

LAT 39°50'14" LONG 108°14'37" DRAINAGE AREA: 48.401 SQ MI (125.359 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY					
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H
TEMPERATURE, WATER (DEG C)	85	11.27	6.33	0.00	25.00		
STREAMFLOW, MEAN DAILY, (CFS)	54	1.49	1.61	0.57	12.60		
STREAMFLOW, CUBIC FT/SEC	62	1.71	1.14	0.11	15.20		
SPECIFIC CONDUCTANCE (MICROMHOS)	77	1300.97	100.96	1050.00	1590.00		
OXYGEN, DISSOLVED	75	10.57	7.67	7.00	75.00		
pH (STANDARD UNITS)	75						
BICARBONATE ION	70	517.56	68.93	315.00	730.00		
NITRITE + NITRATE, DISSOLVED AS N	57	0.37	0.31	0.00	2.00		
ORTHOPHOSPHATE, DISSOLVED AS P	57	0.02	0.02	0.00	0.17		
HARDNESS, TOTAL	58	542.76	26.81	460.00	610.00	58	0.08214
CALCIUM, DISSOLVED	58	91.69	7.29	64.00	110.00		
MAGNESIUM, DISSOLVED	58	75.98	4.34	67.00	87.00	58	0.01933
SODIUM, DISSOLVED	58	125.00	12.74	110.00	180.00	58	0.07266
POTASSIUM, DISSOLVED	58	2.11	0.91	1.10	6.70	58	0.00368
CHLORIDE, DISSOLVED	58	11.49	2.85	8.20	29.00		
SULFATE, DISSOLVED	58	350.52	35.95	290.00	500.00	58	0.19803
SILICA, DISSOLVED	58	15.79	1.35	12.00	18.00		
BORON, DISSOLVED, UG/L	54	175.00	377.26	60.00	2800.00		
DISSOLVED SOLIDS, ROE 180 DEG C	1	945.00	845.00	845.00	1	0.00000	845.00000
DISSOLVED SOLIDS, SUM OF CONST	56	919.96	62.54	792.00	1150.00	56	0.39509
							39A.47451
							0.6667
							47.04077

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME

CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	SAMPLE SITE	DISSOLV(T)	
						TOTAL	90%
MINOR ELEMENTS:							
ARSENIC (AS) • UG/L	54	0.00	0.00	54			
CADMIUM (CD) • UG/L	36	0.00	0.00	36			
CHROMIUM (CR) • UG/L	16	0.00	0.00	16			
COPPER (CU) • UG/L	34	0.00	0.00	34			
IRON (FE) • UG/L	58	10.00	10.00	58			
LEAD (PB) • UG/L	34	0.00	0.00	34			
MANGANESE (MN) • UG/L	55	0.00	0.00	55			
MERCURY (HG) • UG/L	41	0.00	0.00	41			
SELENIUM (SF) • UG/L	60	0.00	2.00	60			
ZINC (ZN) • UG/L	39	0.00	40.00	39			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306061 NAME: PICEANCE CREEK AT HUNTER C. NEAR RIO BLANCO. CO.  
 LAT 39 51'02" LONG 108 15'30" DRAINAGE AREA: 309.001 SQ MI (800.313 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, H	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	105	10.62	6.13	-0.50	23.00			
STREAMFLOW, MEAN DAILY. (CFS)	17	12.68	10.15	4.20	35.00			
STREAMFLOW (CUBIC FT/SEC)	91	15.99	13.87	1.30	96.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	99	1322.27	171.77	750.00	1660.00			
OXYGEN, DISSOLVED	92	21.43	113.71	1.05	1100.00			
PH (STANDARD UNITS)	96	9.5	7.50	9.50				
BICARBONATE ION	95	583.58	89.54	309.00	890.00	95	0.26437	233.78666
NITRITE + NITRATE, DISSOLVED AS N	79	0.43	0.27	0.01	1.30			
ORTHOPHOSPHATE, DISSOLVED AS P	79	0.03	0.02	0.00	0.08			
HARDNESS, TOTAL	79	475.95	51.60	340.00	580.00	79	0.21181	192.81128
CALCIUM, DISSOLVED	79	77.71	10.29	16.00	91.00			
MAGNESIUM, DISSOLVED	79	68.38	10.09	44.00	89.00	79	0.04951	2.19218
SODIUM, DISSOLVED	79	150.86	23.60	91.00	200.00	79	0.1201	-14.9111
POTASSIUM, DISSOLVED	79	3.38	0.84	1.20	6.40	79	0.00178	1.0011
CHLORIDE, DISSOLVED	79	14.13	2.30	9.60	27.00	79	0.00327	9.5860
SULFATE, DISSOLVED	79	294.56	47.09	170.00	390.00	79	0.21922	1.50376
SILICA, DISSOLVED	79	16.41	1.90	11.00	20.00	79	0.00464	10.19700
BORON, DISSOLVED, UG/L	16	201.32	80.55	120.00	770.00			
DISSOLVED SOLIDS, SUM OF CONST	78	909.05	106.99	584.00	1090.00	78	0.56226	156.67414
							0.8646	54.10237

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
 MICROMHOS AT 25 DEG C, THAT WAS  
 EQUALLED OR EXCEEDED FOR THE  
 INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 1141
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
	18	5%	10%	25%	50%	75%	90% 99%
	1650	1540	1490	1410	1310	1230	1130 1070 928

MINOR ELEMENTS:  
 ARSENIC (AS), UG/L  
 CADMIUM (CD), UG/L  
 CHROMIUM (CR), UG/L  
 COPPER (CU), UG/L  
 IRON (FE), UG/L  
 LEAD (PB), UG/L  
 MANGANESE (Mn), UG/L  
 MERCURY (HG), UG/L  
 SELENIUM (SE), UG/L  
 ZINC (Zn), UG/L

LAT 39 52'17" LONG 108 17'13" DRAINAGE AREA: 103.001 SQ MI (266.773 SQ KM)

STATION NUMBER: 09305175 NAME: BLACK SULPHUR CREEK NEAR RIO BLANCO, CO.

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, H	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	67	9.57	5.53	0.50 - 23.00				
STREAMFLOW, MEAN DAILY, (CFS)	3	8.77	2.15	6.70 - 11.00				
STREAMFLOW (CUBIC FT/SEC)	63	5.66	3.94	0.27 - 21.40				
SPECIFIC CONDUCTANCE (MICROMHOS)	63	1610.63	140.04	1300.00 - 1860.00				
OXYGEN, DISSOLVED	58	9.49	1.31	6.00 - 12.00				
P-1 (STANDARD UNITS)	61			7.50 - 8.80				
BICARBONATE ION	59	584.80	96.55	150.00 - 850.00				
NITRITE + NITRATE, DISSOLVED AS N	43	0.32	0.24	0.01 - 1.20				
ORTHOPHOSPHATE, DISSOLVED AS P	43	0.03	0.04	0.00 - 0.24				
HARDNESS, TOTAL	43	677.91	53.39	580.00 - 800.00	42	0.32079	162.32682	0.7659
CALCIUM, DISSOLVED	43	103.14	6.29	90.00 - 120.00	42	0.03209	51.56439	0.6499
MAGNESIUM, DISSOLVED	43	100.86	9.96	94.00 - 120.00	42	0.05701	9.2042	0.7289
SODIUM, DISSOLVED	42	154.55	20.19	91.00 - 190.00	41	0.09660	-6.66791	0.9/207
POTASSIUM, DISSOLVED	43	2.47	0.66	1.70 - 5.00	42	0.00221	-1.08028	0.4260
CHLORIDE, DISSOLVED	43	9.44	1.17	7.70 - 13.00	42	0.00419	2.69098	0.4235
SULFATE, DISSOLVED	43	497.67	58.71	370.00 - 610.00	42	0.30589	6.30353	0.6653
SILICA, DISSOLVED	41	18.07	1.17	15.00 - 20.00				
BORON, DISSOLVED, UG/L	41	145.61	15.50	120.00 - 180.00				
DISSOLVED SOLIDS, ROE 180 DEG C	1	1200.00	1200.00	1200.00 - 1380.00	1	0.00000	1200	0.00000
DISSOLVED SOLIDS, SUM OF CONST	39	1174.18	107.79	945.00 - 1380.00	38	0.61479	188.29875	0.7523

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 1091
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
MINOR ELEMENTS:							
ARSENIC (AS), UG/L	41	0.00	4.00				
CADMIUM(CD), UG/L	41	0.00	4.00				
COPPER (CU), UG/L	41	0.00	7.00				
IRON (FE), UG/L	43	0.00	24.00				
LEAD (PB), UG/L	41	0.00	9.00				
MANGANESE (MN), UG/L	43	30.00	170.00				
MERCURY (HG), UG/L	41	0.00	1.60				
SELENIUM (SE), UG/L	41	0.00	2.00				
ZINC (ZN), UG/L	41	0.00	4.00				

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306200 NAME: PICEANCE CREEK BL RYAN GULCH, NR RIO BLANCO, CO.

LAT 39° 55'16" LONG 108° 17'49"

DRAINAGE AREA: 506.001 SQ MI (1310.54 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SIZE	MEAN	R					REGRESSION COEFFICIENT	CONSTANT	COEFFICIENT R	
TEMPERATURE, WATER (DEG C)	147	8.60	6.45	0.00	24.00						
STREAMFLOW, MEAN DAILY, (CFS)	82	21.32	21.89	3.40	125.00						
STREAMFLOW (CUBIC FT/SEC)	64	19.77	12.82	2.60	60.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	138	1602.30	351.49	138.00	2800.00						
OXYGEN, DISSOLVED	92	9.91	1.34	6.90	12.40						
pH (STANDARD UNITS)	136	0.04	0.04	7.00	8.90						
BICARBONATE ION	98	652.58	124.67	258.00	1100.00	96	0.36348	72.43209	0.8395	6.8.24947	
NITRITE + NITRATE, DISSOLVED AS N	87	0.39	0.58	0.00	4.60						
ORTHOPHOSPHATE, DISSOLVED AS P	88	0.04	0.04	0.00	0.31						
HARDNESS, TOTAL	89	564.34	75.95	190.00	700.00	87	0.22038	210.57543	0.7888	4.7.29562	
CALCIUM, DISSOLVED	89	82.85	9.99	41.00	100.00						
MAGNESIUM, DISSOLVED	89	86.65	15.43	21.00	110.00	87	0.05052	5.55904	0.8805	7.11033	
SODIUM, DISSOLVED	88	191.90	51.90	66.00	380.00	86	0.17175	-82.88690	0.9048	22.27194	
POTASSIUM, DISSOLVED	88	3.44	0.90	2.30	8.40	86	0.00137	1.18827	0.5248	0.61372	
CHLORIDE, DISSOLVED	89	16.11	4.05	9.10	32.00	87	0.00941	1.02332	0.6332	3.16911	
SULFATE, DISSOLVED	88	401.82	81.19	110.00	570.00	86	0.26451	-21.15826	0.8930	36.74144	
SILICA, DISSOLVED	85	17.39	1.73	11.00	21.00	83	0.00303	12.54022	0.4944	1.49019	
BORON, DISSOLVED, ug/l	31	220.32	54.31	150.00	320.00						
DISSOLVED SOLIDS, ROE 180 DEG C	1	1360.00		1360.00	1360.00	1	0.00000	1360	0.00000	0.00000	
DISSOLVED SOLIDS, SUM OF CONST	84	1115.55	198.80	392.00	1630.00	82	0.67965	30.33253	0.9440	66.10996	

CONSTITUENT	TOTAL			DISSOLVED			CONC.
	No. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	
MINOR ELEMENTS:							
ARSENIC (AS), ug/l	23				1.00		6.00
CADMIUM (CD), ug/l	21				0.00		5.00
COPPER (CU), ug/l	22				0.00		13.00
IRON (FE), ug/l	87				10.00		160.00
LEAD (PB), ug/l	22				0.00		26.00
MANGANESE (Mn), ug/l	88				0.00		250.00
MERCURY (HG), ug/l	23				0.00		0.30
SELENIUM (SE), ug/l	23				0.00		3.00
ZINC (Zn), ug/l	22				0.00		30.00



## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306222 NAME: PICEANCF CREEK AT WHITE RIVER, CO.

LAT 40 04°39" LONG 104 14°08" DRAINAGE AREA: 652.001 SQ MI (1688.68 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION					REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT	
TEMPERATURE, WATER (DEG C)	142	8.83	7.50	0.00	30.00						
STREAMFLOW, MEAN DAILY, (CFS)	84	31.33	51.63	1.30	416.00						
STREAMFLOW (CUBIC FT/SEC)	72	52.94	221.83	0.29	1900.00						
SPECIFIC CONDUCTANCE (MICROMHOS)	142	2803.89	1229.20	560.00	7240.00						
OXYGEN, DISSOLVED	85	9.66	1.67	4.90	12.70						
P4 (STANDARD UNITS)	136			7.10	9.00						
BICARBONATE ION	96	1193.61	624.27	292.00	4690.00	95	0.50016	-129.087	0.9026	271.12296	
NITRITE + NITRATE, DISSOLVED AS N	88	0.38	0.28	0.00	1.60						
ORTHOPHOSPHATE, DISSOLVED AS P	88	0.06	0.06	0.00	0.49						
HARDNESS, TOTAL	91	501.54	68.93	160.00	640.00						
CALCIUM, DISSOLVED	91	58.14	17.66	16.00	84.00	90	-0.01052	86.28524	-0.6790	13.02925	
MAGNESIUM, DISSOLVED	91	86.33	14.59	18.00	110.00	90	0.00649	68.90223	0.5036	12.74288	
SODIUM, DISSOLVED	90	514.18	329.79	76.00	2000.00	89	0.28488	-48.602	0.9846	58.14479	
POTASSIUM, DISSOLVED	90	4.56	1.37	2.60	8.80	89	0.00667	2.79595	0.5564	1.14187	
CHLORIDE, DISSOLVED	90	81.14	114.42	11.00	1000.00	89	0.06877	-102.152	0.6736	85.46346	
SULFATE, DISSOLVED	88	438.53	108.32	50.00	740.00	87	0.04681	315.73208	0.4838	95.53401	
SILICA, DISSOLVED	90	15.51	3.16	6.10	23.00	89	-0.00169	20.00163	-0.6148	2.49061	
BORON, DISSOLVED, UG/L	32	389.69	182.75	160.00	820.00						
DISSOLVED SOLIDS, ROE 180 DEG C	1	2370.00	2370.00	2370.00	1	0.00000	2370	0.00000	0.00000	0.00000	
DISSOLVED SOLIDS, SUM OF CONST	88	1802.58	773.52	378.00	5280.00	87	0.68437	-1.38958	0.9895	112.83906	

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE SAMPLE SIZE = 2098

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%	90%	95%	99%	DISOLVED	
										CONSTITUENT	NO. SAMPLES
8000	5900	4800	3500	2530	1960	1700	1480	1480	1050		

## REGRESSION SUMMARY

## STANDARD

## ERROR OF

## ESTIMATE

MINOR ELEMENTS:											
ARSENIC (AS) • UG/L	24	0.00									31.00
CADMIUM (CD) • UG/L	21	0.00									8.00
CHROMIUM (CR) • UG/L	20	0.00									10.00
COPPER (CU) • UG/L	21	0.00									24.00
IRON (FE) • UG/L	90	10.00									560.00
LEAD (PB) • UG/L	21	0.00									21.00
MANGANESE (MN) • UG/L	90	0.00									80.00
MERCURY (HG) • UG/L	22	0.00									0.10
SELENIUM (SF) • UG/L	24	0.00									7.00
ZINC (ZN) • UG/L	21	0.00									50.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306235 NAME: CORRAL GULCH BELOW WATER GULCH, NR HANGFLY, CO.

LAT 39 54' 22" LUNG 10H 31' 56" DRAINAGE AREA:

R.611 SQ MI (22.3025 50 KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE.

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, R	CONSTANT, A	CORRELATION COEFFICIENT, R <sup>2</sup>
TEMPERATURE, WATER (DEG C)	58	14.35	7.44	0.50 - 30.00	47	0.28482	84.71514	0.7724
STREAMFLOW, MEAN DAILY (CFS)	26	0.30	0.18	0.02 - 0.74				
STREAMFLOW (CUBIC FT/SEC)	34	0.23	0.17	0.02 - 0.64				
SPECIFIC CONDUCTANCE (MICROMhos)	50	1064.10	125.43	260.00 - 1200.00				
OXYGEN, DISSOLVED	43	A.56	1.41	5.60 - 11.70				
pH (STANDARD UNITS)	50							
BICARBONATE ION	48	387.12	47.21	140.00 - 513.00	47	0.28482	84.71514	0.7724
NITRATE + NITRATE, DISSOLVED AS N	49	1.00	0.43	0.01 - <2.00				
ORTHOPHOSPHATE, DISSOLVED AS P	49	0.01	0.02	0.00 - 0.09				
HARDNESS, TOTAL	51	448.63	52.15	140.00 - 510.00	50	0.34507	82.21572	0.8662
CALCIUM, DISSOLVED	51	83.67	11.72	32.00 - 99.00	50	0.05773	22.53345	0.6215
MAGNESIUM, DISSOLVED	51	58.06	7.00	15.00 - 70.00	50	0.04791	7.08280	0.8504
SODIUM, DISSOLVED	51	84.47	12.27	22.00 - 120.00	50	0.07273	6.90326	0.7395
POTASSIUM, DISSOLVED	51	1.49	0.46	0.60 - <2.80				
CHLORIDE, DISSOLVED	51	7.76	1.33	3.80 - 12.00	50	0.00439	3.06274	0.4142
SULFATE, DISSOLVED	51	276.31	35.30	52.00 - 320.00	50	0.24952	10.52833	0.8792
SILICA, DISSOLVED	50	20.72	2.96	5.80 - 24.00	49	0.01637	3.27123	0.6962
BORON, DISSOLVED, ug/l	43	94.88	19.93	30.00 - 130.00				
DISSOLVED SOLIDS, RNE 100 DEG C	1	724.00	124.00	724.00 - 814.00	1	0.00000	724.00000	0.0000
DISSOLVED SOLIDS, SUM OF CONST	47	726.72	A4.73	202.00 - 814.00	46	0.59979	88.74637	0.9124

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

CONSTITUENT	TOTAL			SAMPLE SIZE = 450		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
DAILY SPECIFIC CONDUCTANCE IN MICROMhos AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%
	1290	1270	1170	1100	1060	993
					81H	526
						261

MINOR ELEMENTS:  
 ARSENIC (As), ug/l  
 CADMIUM (Cd), ug/l  
 CHROMIUM (Cr), ug/l  
 COPPER (Cu), ug/l  
 IRON (Fe), ug/l  
 LEAD (Pb), ug/l  
 MANGANESE (Mn), ug/l  
 MERCURY (Hg), ug/l  
 SELENIUM (Se), ug/l  
 ZINC (Zn), ug/l

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 093062622 NAME: CORRAL GULCH NEAR PANGELLY, CO.

LAT 39° 55'13" LONG 108° 28'20" DRAINAGE AREA: 31.601 SQ MI (81.8465 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY		
	SAMPLE SIZE	STANDARD DEVIATION	RANGE
TEMPERATURE, WATER (DEG C)	79	11.6*	4.22 - 1.00
STREAMFLOW, MEAN DAILY, (CFS)	36	0.93	0.74 - 0.20
STREAMFLOW (CUBIC FT/SEC)	64	1.72	2.63 - 0.20
SPECIFIC CONDUCTANCE (MICROMHOS)	71	1231.15	132.77 - 797.00
OXYGEN, DISSOLVED	63	8.59	1.88 - 4.80
pH (STANDARD UNITS)	69	-	7.10 - 8.50
BICARBONATE ION	69	503.2*	89.67 - 327.00
NITRITE + NITRATE, DISSOLVED AS N	64	0.43	0.35 - 0.02
ORTHOPHOSPHATE, DISSOLVED AS P	63	0.03	0.02 - 0.00
HARDNESS, TOTAL	70	466.86	39.14 - 360.00
CALCIUM, DISSOLVED	70	82.73	9.35 - 55.00
MAGNESIUM, DISSOLVED	70	63.14	6.71 - 45.00
SODIUM, DISSOLVED	70	120.71	39.36 - 51.00
POTASSIUM, DISSOLVED	70	1.69	0.48 - 0.70
CHLORIDE, DISSOLVED	70	10.27	2.34 - 5.90
SULFATE, DISSOLVED	70	282.71	38.75 - 160.00
SILICA, DISSOLVED	70	21.17	2.43 - 13.00
BORON, DISSOLVED, ug/l	59	159.15	127.86 - 60.00
DISSOLVED SOLIDS, ROE 180 DEG C	1	937.00	937.00 - 670.00
DISSOLVED SOLIDS, SUM OF CONST	69	831.75	90.08 - 522.00

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 990		
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
TOTAL	1720	1550	1440	1310	1220	1160
DISSOLVED	1720	1550	1440	1310	1220	1160

DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C, THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME				SAMPLE SIZE = 990		
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
TOTAL	1720	1550	1440	1310	1220	1160
DISSOLVED	1720	1550	1440	1310	1220	1160

MINOR ELEMENTS:  
 ARSENIC (AS) • ug/l  
 CADMIUM (CD) • ug/l  
 CHROMIUM (CR) • ug/l  
 COPPER (CU) • ug/l  
 IRON (FE) • ug/l  
 LEAD (Pb) • ug/l  
 MANGANESE (MN) • ug/l  
 MERCURY (HG) • ug/l  
 SELENIUM (SE) • ug/l  
 TIN (Zn) • ug/l

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306244 NAME: CORRAL GULCH AT 84 RANCH, CO.

LAT 39° 56' 02" LONG 104° 25' 35" DRAINAGE AREA: 37.801 SQ MI (197.9045 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	29	11.88	6.27	1.00	23.00			
STREAMFLOW, MEAN DAILY, (CFS)	6	0.09	0.12	0.01	0.31			
STREAMFLOW, (CUBIC FT/SFC)	33	0.57	1.00	0.01	4.80			
SPECIFIC CONDUCTANCE (MICROMHOS)	24	1807.50	112.03	1520.00	2000.00			
OXYGEN, DISSOLVED	19	9.42	2.35	4.40	13.40			
pH (STANDARD UNITS)	24			7.40	8.60			
HICARBONATE ION	23	605.39	40.43	518.00	658.00			
NITRITE + NITRATE, DISSOLVED AS N	21	0.42	0.37	0.00	1.30			
ORTHOPHOSPHATE, DISSOLVED AS P	22	0.02	0.01	0.00	0.05			
HARDNESS, TOTAL	23	712.17	45.42	650.00	800.00	22	0.17103	405.35391
CALCIUM, DISSOLVED	23	109.70	11.07	84.00	140.00	22	0.05645	9.29697
MAGNESIUM, DISSOLVED	23	105.91	8.50	90.00	120.00			
SODIUM, DISSOLVED	23	183.48	9.35	170.00	200.00			
POTASSIUM, DISSOLVED	23	2.86	0.54	1.90	4.40			
CHLORIDE, DISSOLVED	23	18.91	1.81	15.00	23.00	22	0.01007	0.67317
SULFATE, DISSOLVED	23	556.52	35.37	480.00	610.00	22	0.16436	261.07713
SILICA, DISSOLVED	23	18.13	1.66	15.00	22.00			
BORON, DISSOLVED, UG/L	23	166.52	38.45	40.00	220.00			
DISSOLVED SOLIDS, SUM OF CONST	23	1297.39	60.17	1170.00	1390.00	22	0.28349	788.12038
							0.5554	49.77490

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMHOS AT 25 DEG C THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 309
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	

MINOR ELEMENTS:  
 ARSENIC (AS) • UG/L  
 CADMIUM (CD) • UG/L  
 CHROMIUM (CR) • UG/L  
 COPPER (CU) • UG/L  
 IRON (FE) • UG/L  
 LEAD (PB) • UG/L  
 MANGANESE (MN) • UG/L  
 MERCURY (HG) • UG/L  
 SELENIUM (SE) • UG/L  
 ZINC (ZN) • UG/L

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09306255 NAME: YELLOW CREEK NEAR WHITE RIVER, CO.

LAT 40°10'07" LONG 108°24'02" DRAINAGE AREA: 262.001 SQ MI (678.583 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, H	CORRELATION COEFFICIENT, R
TEMPERATURE, WATER (DEG C)	57	13.18	8.45	0.00	28.00			
STREAMFLOW, MEAN DAILY, (CFS)	12	2.32	0.51	1.70	3.00			
STREAMFLOW (CUBIC FT/SEC)	45	6.22	30.01	0.27	203.00			
SPECIFIC CONDUCTANCE (MICROMhos)	59	3732.78	411.14	2410.00	5000.00			
OXYGEN, DISSOLVED	49	9.46	1.89	5.60	12.60			
pH (STANDARD UNITS)	55	7.00	0.10	6.90	7.10			
BICARBONATE, ION	52	1505.10	305.13	595.00	2060.00	52	0.32061	315.36100
NITRITE + NITRATE, DISSOLVED AS N	52	0.82	0.76	0.00	2.70			
ORTHOPHOSPHATE, DISSOLVED AS P	50	0.07	0.25	0.00	1.40			
HARDNESS, TOTAL	55	536.15	71.27	289.00	670.00	55	-0.01582	89.77967
CALCIUM, DISSOLVED	55	30.82	16.77	7.00	130.00			
MAGNESIUM, DISSOLVED	56	111.43	17.48	50.00	151.00			
SODIUM, DISSOLVED	54	786.85	93.04	500.00	1000.00	54	0.15154	221.19332
POTASSIUM, DISSOLVED	54	4.53	0.89	3.50	7.40			
CHLORIDE, DISSOLVED	56	133.80	24.04	93.00	220.00	56	0.03065	19.51954
SULFATE, DISSOLVED	55	565.27	64.00	400.00	750.00	55	0.04339	40.317527
SILICA, DISSOLVED	53	9.79	4.36	1.10	20.00	53	-0.00279	20.22705
BORON, DISSOLVED, UG/L	49	680.00	132.74	230.00	960.00			
DISSOLVED SOLIDS, ROE 180 DEG C	2	2640.00	155.56	2530.00	2750.00	2	0.91667	-678.333
DISSOLVED SOLIDS, SUM OF CONST	49	2523.27	238.20	1740.00	3070.00	49	0.37810	1117.18

## DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE

DAILY SPECIFIC CONDUCTANCE IN  
MICROMhos AT 25 DEG C, THAT WAS  
EQUALLED OR EXCEEDED FOR THE  
INDICATED PERCENTAGE OF TIME

CONSTITUENT	TOTAL			DISSOLVED			SAMPLE SIZE = 1056		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.			
	4760	4560	4450	3910	3540	3060	2670	2000	

MINOR ELEMENTS:  
ARSENIC (AS) • UG/L  
CADMIUM(CD) • UG/L  
CHROMIUM (CR) • UG/L  
COPPER (CU) • UG/L  
IRON (FE) • UG/L  
LEAD (PB) • UG/L  
MANGANESE (MN) • UG/L  
MERCURY (HG) • UG/L  
SELENIUM (SE) • UG/L  
ZINC (ZN) • UG/L

LAT 40 06126° LONG 108 42°44°

STATION NUMBER: 09306300 DRAINAGE AREA: 2173 SQ MI (17182.07 SQ KM)

## STATISTICAL SUMMARY OF WATER QUALITY DATA

NAME: WHITE RIVER ABOVE RANGELY, CO.

## STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT H	CONSTANT H	CORRELATION COEFFICIENT H
TEMPERATURE, WATER (DEG C)	87	11.29	7.30	0.00	24	0.00		
STREAMFLOW, MEAN DAILY (CFS)	24	670.29	520.92	305.00	24	80.00		
STREAMFLOW (CUBIC FT/SEC)	148	669.07	648.91	105.00	36	0.00		
SPECIFIC CONDUCTANCE (MICROMHOS)	57	6.86	9.91	213.19	210	0.00		
OXYGEN, DISSOLVED	32	9.45	2.10	6.00	13	4.00		
P-1 (STANDARD UNITS)	35			7.40	8	7.00		
BICARBONATE, ION	37	223.54	41.98	130.00	34	0.00	35	0.20081
HARDNESS, TOTAL	37	278.43	59.31	138.00	34	0.00	35	0.30135
CALCIUM, DISSOLVED	37	70.27	13.22	39.00	94	0.00	35	0.06070
MAGNESIUM, DISSOLVED	37	24.70	7.19	9.90	48	0.00	35	0.03672
SODIUM, DISSOLVED	35	62.86	24.57	15.00	140	0.00	33	0.13191
POTASSIUM, DISSOLVED	35	2.33	1.09	1.20	6	4.00	33	0.00298
CHLORIDE, DISSOLVED	37	37.56	15.09	7.80	75	0.00	35	0.07474
SULFATE, DISSOLVED	37	166.84	58.38	49.00	310	0.00	35	0.28399
SILICA, DISSOLVED	37	13.49	1.95	10.00	19	0.00		
BORON, DISSOLVED, UG/L	35	68.86	28.26	20.00	140	0.00		
DISSOLVED SOLIDS, ROE 180 DEG C	2	396.50	262.34	211.00	582	0.00	2	0.68959
DISSOLVED SOLIDS, SUM OF CONST	35	494.34	128.06	219.00	858	0.00	33	-20.01301
								0.00000
								0.9565
								38.59039

CONSTITUENT	TOTAL			DISOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L	23			23	0.00	6.00
CAIUM (CD), UG/L	7			7	0.00	2.00
CHROMIUM (CR), UG/L	7			7	0.00	20.00
COPPER (CU), UG/L	9			9	0.00	7.00
IRON (FE), UG/L	32			20	0.00	220.00
LEAD (PB), UG/L	7			7	0.00	7.00
MANGANESE (Mn), UG/L	24			0.00	60.00	
MERCURY (HG), UG/L	8			0.00	1.10	
SELENIUM (Se), UG/L	23			0.00	5.00	
ZINC (Zn), UG/L	8			0.00	10.00	

# STATISTICAL SUMMARY OF WATER QUALITY DATA

NAME: WOLF CREEK NEAR PAGOSA SPRINGS, CO.  
STATION NUMBER: 093341200

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONCENTRATION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	69	6.94	4.28	1.00	18.00			
STREAMFLOW, MEAN DAILY (CFS)	60	50.96	64.33	4.00	337.00			
STREAMFLOW (CUBIC FT/SEC)	9	78.81	80.11	2.52	207.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	67	48.57	11.20	28.00	80.00			
OXYGEN, DISSOLVED	23	9.83	0.82	7.80	11.30			
P4 (STANDARD UNITS)	67		6.50	8.70				
HICARBONATE ION	47	22.36	5.68	10.00	35.00	45	0.37254	5.13027
NITRITE + NITRATE, DISSOLVED AS N	47	0.05	0.04	0.00	0.18			
ORTHOPHOSPHATE, DISSOLVED AS P	47	0.02	0.02	0.00	0.10			
HARDNESS, TOTAL	47	16.38	4.19	11.00	26.00	45	0.28829	2.97788
CALCIUM, DISSOLVED	47	5.58	1.39	3.70	8.70	45	0.09447	1.18279
MAGNESIUM, DISSOLVED	47	0.59	0.24	0.10	1.10	45	0.01450	0.08271
SODIUM, DISSOLVED	47	2.83	0.96	1.60	5.50	45	0.06372	0.15739
POTASSIUM, DISSOLVED	47	1.01	0.31	0.50	2.40			
CHLORIDE, DISSOLVED	47	0.74	0.63	0.00	2.40	45	0.01904	-0.14627
SULFATE, DISSOLVED	47	4.52	1.56	1.30	8.00	45	0.07534	0.104231
SILICA, DISSOLVED	47	16.11	2.06	10.00	23.00	45	0.08309	12.20728
BORON, DISSOLVED, UG/L	9	28.89	35.86	0.00	110.00			
DISSOLVED SOLIDS, ROE 100 DEG C	2	42.50	6.36	38.00	47.00	2	-2.25000	175.24995
DISSOLVED SOLIDS, SUM OF CONST	47	42.83	7.83	30.00	61.00	45	0.53444	17.99138

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
IRON (EFF.) ug/l	37			37	0.00	120.00
MINOR ELEMENTS:						

**MINOR ELEMENTS:**  
 IRON (FE) • UG/L  
 MANGANESE (Mn) • UG/L

LAT 37° 00' 10" LONG 106° 54' 25"

STATION NUMBER: 09346000 NAME: NAVAJO RIVER AT EDITH, CO.

DRAINAGE AREA: 172.001 SQ MI (445.483 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION (MG/L OR UNIT SHOWN)				REGRESSION SUMMARY			
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	88	8.91	6.93	0.00	22.00			
STREAMFLOW, MEAN DAILY, (CFS)	35	83.16	119.32	20.00	551.00			
STREAMFLOW (CUBIC FT/SEC)	33	117.06	159.13	12.00	650.00			
SPECIFIC CONDUCTANCE (MICROMHOS)	83	237.41	60.18	107.00	387.00			
OXYGEN, DISSOLVED	24	9.75	1.79	6.60	12.40			
pH (STANDARD UNITS)	47			7.20	9.10			
BICARBONATE ION	28	85.71	15.42	57.00	118.00	28	0.19630	37.87441
NITRITE + NITRATE, DISSOLVED AS N	22	0.10	0.27	0.00	1.30			
ORTHOPHOSPHATE, DISSOLVED AS P	21	0.04	0.02	0.01	0.08			
HARDNESS, TOTAL	29	98.31	21.56	55.00	160.00	29	0.36050	9.76352
CALCIUM, DISSOLVED	29	27.97	5.37	17.00	41.00	29	0.09049	5.73830
MAGNESIUM, DISSOLVED	29	6.98	1.91	3.60	13.00	29	0.02941	-0.24330
SODIUM, DISSOLVED	29	9.80	2.21	5.60	16.00	29	0.03642	0.8857
POTASSIUM, DISSOLVED	29	1.96	0.47	1.10	2.90	29	0.00443	0.87320
CHLORIDE, DISSOLVED	29	1.24	0.59	0.20	2.60	29	0.05449	-0.10460
SULFATE, DISSOLVED	29	46.90	13.64	20.00	90.00	29	0.20019	-2.27479
SILICA, DISSOLVED	29	22.83	2.85	16.00	27.00			
BORON, DISSOLVED, UG/L	23	26.52	16.68	0.00	70.00			
DISSOLVED SOLIDS, ROE 180 DEG C	29	165.38	35.40	94.00	249.00	29	0.56031	27.75575
DISSOLVED SOLIDS, SUM OF CONST	28	161.36	30.04	95.00	241.00	28	0.48221	43.83588

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
ARSENIC (AS), UG/L	1	3.00	3.00			
CADMIUM (CD), UG/L	1	0.00	0.00			
COPPER (CU), UG/L	1	11.00	11.00			
IRON (FE), UG/L	23	10.00	180.00			
MANGANESE (MN), UG/L	1	20.00	20.00			
SELENIUM (SE), UG/L	1	3.00	3.00			
ZINC (ZN), UG/L	1	20.00	20.00			

LAT 37° 00' 49" LONG 107° 18' 42"

STATION NUMBER: 09346400

NAME: SAN JUAN RIVER NR CARRACAS, COLORADO

DRAINAGE AREA: 1230 SQ MI (3185.7 SQ KM)

STATISTICAL SUMMARY OF SELECTED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT CONCENTRATION (MG/L OR UNIT SHOWN)

CONSTITUENT	REGRESSION SUMMARY							
	SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT A	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	66	9.32	7.15	0.00	22.00			
STREAMFLOW, MEAN DAILY, (CFS)	45	467.36	402.37	88.00	1510.00			
STREAMFLOW (CUBIC FT/SEC)	26	776.20	752.57	93.20	2540.00			
SPECIFIC CONDUCTANCE (MICROMhos)	48	270.17	91.90	125.00	460.00			
OXYGEN, DISSOLVED	32	9.25	2.01	5.50	11.80			
P-4 (STANDARD UNITS)	46							
BICARBONATE, ION	24	95.54	24.10	53.00	153.00	24	0.23718	30.36772
NITRITE + NITRATE, DISSOLVED AS N	10	0.08	0.10	0.00	0.28			
ORTHOPHOSPHATE, DISSOLVED AS P	9	0.02	0.01	0.01	0.04			
HARDNESS, TOTAL	24	98.25	31.71	46.00	160.00	24	0.32887	7.87817
CALCIUM, DISSOLVED	24	28.25	8.06	14.00	44.00	24	0.08387	5.20213
MAGNESIUM, DISSOLVED	24	7.08	2.81	2.70	13.00	24	0.02755	-0.49657
SODIUM, DISSOLVED	24	17.21	7.53	6.90	30.00	24	0.07784	-4.18103
POTASSIUM, DISSOLVED	24	2.27	0.81	0.80	4.50	24	0.0769	0.51439
CHLORIDE, DISSOLVED	24	2.34	1.40	0.20	5.20	24	0.01279	-1.17834
SULFATE, DISSOLVED	24	55.54	26.87	17.00	114.00	24	0.28102	-21.68096
SILICA, DISSOLVED	24	17.21	2.40	10.00	21.00			
BORON, DISSOLVED, UG/L	11	43.64	28.38	10.00	100.00			
DISSOLVED SOLIDS, ROE 180 DEG C	24	183.00	61.88	75.00	298.00	24	0.65079	4.16706
DISSOLVED SOLIDS, SUM OF CONST	24	178.08	57.53	86.00	287.00	24	0.61552	8.94393

CONSTITUENT	TOTAL				DISSOLVED			
	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.		
MINOR ELEMENTS:								
COPPER (CU), ug/l	1	2.00		11	0.00	7.00		
IRON (FE), ug/l							12.00	12.00
MANGANESE (MNI), ug/l	1	6.00					6.00	6.00

LAT 37 29°12" LONG 107 09°46" DRAINAGE AREA:

STATION NUMBER: 09347200 NAME: MIDDLE FORK PIEDRA RIVER FIR PAGOSA SPRINGS, CO.

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE
	SAMPLE SITE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	
TEMPERATURE, WATER (DEG C)	70	8.57	3.66	1.00	18.00		
STREAMFLOW, MEAN DAILY, (CFS)	60	69.26	82.73	4.91	396.00		
STREAMFLOW, (CUBIC FT/SEC)	9	123.87	121.41	11.80	346.00		
SPECIFIC CONDUCTANCE (MICROMhos)	64	63.11	15.49	36.00	109.00		
OXYGEN, DISSOLVED	22	9.70	0.93	7.90	11.20		
P-4 (STANDARD UNITS)	70			6.60	8.80		
BICARBONATE ION	47	29.30	6.44	17.00	40.00	45	0.7481
NITRITE + NITRATE, DISSOLVED AS N	47	0.03	0.03	0.00	0.13		4.23250
ORTHOPHOSPHATE, DISSOLVED AS P	47	0.04	0.02	0.00	0.10		
HARDNESS, TOTAL	47	21.09	4.65	11.00	30.00	45	0.22519
CALCIUM, DISSOLVED	47	6.57	1.27	4.00	9.20	45	0.0575
MAGNESIUM, DISSOLVED	47	1.14	0.39	0.30	2.00	45	0.01826
SODIUM, DISSOLVED	47	3.81	1.03	1.50	5.50	45	0.02675
POTASSIUM, DISSOLVED	47	1.12	0.26	0.60	1.70		0.09946
CHLORIDE, DISSOLVED	47	1.00	1.00	0.00	6.50		
SULFATE, DISSOLVED	47	5.77	1.51	3.20	9.20	45	0.03613
SILICA, DISSOLVED	46	19.07	2.58	12.00	26.00	44	0.08931
IRON, DISSOLVED, UG/L	9	24.44	25.06	0.00	80.00		13.06755
DISSOLVED SOLIDS, ROE 1AO DEG C	2	62.50	3.54	60.00	65.00	2	-1.00000
DISSOLVED SOLIDS, SUM OF CONST	46	53.44	8.90	34.00	67.00	44	0.41942

CONSTITUENT	TOTAL (DISSOLVED)			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM	MAXIMUM	
MINOR ELEMENTS!				
IRON (FE) • UG/L	37	20.00	140.00	
MANGANESE (Mn) • UG/L	38	0.00	30.00	

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09352900 NAME: VALLECITO CREEK NEAR HAYFIELD, CO.

LAT 37° 28'39" LONG 107° 32'35"

DRAINAGE AREA: 72.101 SQ MI (186.742 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY							
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SITE	REGRESSION COEFFICIENT R	CONSTANT H	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	229	4.61	3.69	0.00	15.00				
STREAMFLOW, MEAN DAILY, (CFS)	214	168.34	235.06	10.00	1360.00				
STREAMFLOW (CUBIC FT/SEC)	50	145.98	225.01	5.20	962.00				
SPECIFIC CONDUCTANCE (MICROMhos)	214	72.74	16.18	33.00	120.00				
OXYGEN, DISSOLVED	94	9.71	1.03	6.80	12.20				
P <sub>4</sub> (STANDARD UNITS)	190 <sup>a</sup>								
BICARBONATE ION	156	32.28	8.27	14.00	52.00	154	0.41947	1.85006	0.8322
NITRATE + NITRATE, DISSOLVED AS N	99	0.12	0.06	0.01	0.35				
ORTHOPHOSPHATE, DISSOLVED AS P	99	0.03	0.26	0.00	2.60				
HARDNESS, TOTAL	162	33.60	8.50	12.00	71.00	159	0.41486	3.44632	0.8014
CALCIUM, DISSOLVED	134	10.23	2.73	3.60	26.00	131	0.12189	1.33070	0.7385
MAGNESIUM, DISSOLVED	134	2.06	0.64	0.50	4.00	131	0.02908	-0.06125	0.7389
SODIUM, DISSOLVED	143	1.26	0.94	0.00	6.70	140	0.02723	-0.72315	0.4734
POTASSIUM, DISSOLVED	134	0.70	0.40	0.20	3.90	131	0.00445	0.37737	0.1776
CHLORIDE, DISSOLVED	142	0.95	1.01	0.00	10.00				0.40222
SULFATE, DISSOLVED	142	8.69	2.70	3.10	18.00	140	0.08669	2.36008	0.5237
SILICA, DISSOLVED	131	3.68	0.63	2.30	5.00	129	0.02484	1.85999	0.6303
BORON, DISSOLVED, ug/l	35	12.86	13.84	0.00	60.00				
DISSOLVED SOLIDS, ROT 140 DEG C	43	43.16	11.65	17.00	75.00	43	0.53795	4.63044	0.6519
DISSOLVED SOLIDS, SUM OF CONST	115	44.08	9.97	20.00	74.00	114	0.49890	7.75147	0.8434
									0.3H516

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
<b>MINOR ELEMENTS:</b>						
ARENIC (AS), ug/l				4	0.00	3.00
CADMIUM(CD), ug/l				4	0.00	1.00
CHROMIUM (CR), ug/l				1	0.00	0.00
COPPER (CU), ug/l				5	1.00	4.00
IRON (FE), ug/l				101	0.00	340.00
LEAD (PB), ug/l				5	1.00	7.00
MANGANESE (MN), ug/l				100	0.00	340.00
MERCURY (HG), ug/l				1	0.00	0.00
SELENIUM (SE), ug/l				1	0.00	0.00
ZINC (ZN), ug/l				12	0.00	40.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09354500  
 LAT 37 00'34" LONG 107 35'56" DRAINAGE AREA: 510,000 SQ MI ( 1320.9 SQ KM )

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY			STANDARD ERROR OF ESTIMATE	
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT, H	CONSTANT, B	CORRELATION COEFFICIENT
TEMPERATURE, WATER (DEG C)	67	11.03	7.56	0.00	24.50			
STREAMFLOW, MEAN DAILY, (CFS)	44	187.07	124.55	54.00	542.00			
STREAMFLOW (CUBIC FT/SEC)	26	298.66	371.33	50.00	1310.00			
SPECIFIC CONDUCTANCE, (MICROMHOS)	49	230.31	49.02	140.00	331.00			
OXYGEN, DISSOLVED	31	9.33	1.76	6.00	12.40			
P+ (STANDARD UNITS)	45	120.24	24.91	7.60	8.90			
BICARBONATE, ION	25	91.52	0.02	0.03	0.00	0.00	0.10	
NITRATE + NITRATE, DISSOLVED AS N	11	0.02	0.03	0.00	0.00	0.00	0.00	
ORTHOPHOSPHATE, DISSOLVED AS P	9	0.02	0.03	0.00	0.00	0.00	0.10	
HARDNESS, TOTAL	25	29.04	5.41	20.00	42.00	25	0.33576	14.14695
CALCIUM, DISSOLVED	25	4.81	1.02	2.90	7.00	25	0.10165	5.61542
MAGNESIUM, DISSOLVED	25	13.34	4.96	5.30	24.00	25	0.01939	0.33954
SODIUM, DISSOLVED	25	1.76	0.63	0.50	3.00	25	0.09211	-7.88914
POTASSIUM, DISSOLVED	25	3.18	1.69	0.40	6.80	25	0.00600	0.37730
CHLORIDE, DISSOLVED	25	18.96	6.45	11.00	34.00	25	0.02040	-1.51791
SULFATE, DISSOLVED	25	6.01	2.10	2.40	12.00	25	0.11512	-7.56747
SILICA, DISSOLVED	12	24.17	20.65	0.00	80.00	24	0.63637	-4.35439
BORON, DISSOLVED, UG/L	24	140.21	33.09	80.00	210.00	25	0.57592	5.00480
DISSOLVED SOLIDS, ROE 1AN DEG C	25	137.72	29.68	83.00	201.00	25	0.9851	5.22109
DISSOLVED SOLIDS, SUM OF CONST								

CONSTITUENT	TOTAL			DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.	
MINOR ELEMENTS!							
ARSENIC (AS) • UG/L	1			1	2.00	2.00	2.00
COPPER (CU) • UG/L	1	1.00	1.00	1	1.00	1.00	1.00
IRON (FE) • UG/L	12	0.00	90.00	12	0.00	90.00	90.00
MANGANESE (MNN) • UG/L	2	0.00	12.00	2	0.00	12.00	12.00
SELENTUM (SE) • UG/L	1	3.00	3.00	1	3.00	3.00	3.00

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09357500 NAME: ANIMAS RIVER AT HOWARDSVILLE, CO.  
 LAT 37 49'59" LONG 107 35'56" DRAINAGE AREA: 55.901 SQ MI ( 144.784 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	REGRESSION SUMMARY		
	SAMPLE SIZE	REGRESSION COEFFICIENT R	SAMPLE SIZE
TEMPERATURE, WATER (DEG C)	73	7.63	3.48
STREAMFLOW, MEAN DAILY, (CFS)	65	179.44	197.47
STREAMFLOW (CUBIC FT/SEC)	9	223.88	225.76
SPECIFIC CONDUCTANCE (MICROMHOES)	74	206.30	77.85
OXYGEN, DISSOLVED PH (STANDARD UNITS)	22	9.13	1.22
BICARBONATE, ION	47	31.47	9.07
NITRITE + NITRATE, DISSOLVED AS N	45	0.18	0.08
ORTHOPHOSPHATE, DISSOLVED AS P	45	0.01	0.02
HARDNESS, TOTAL	47	95.06	38.15
CALCIUM, DISSOLVED	47	34.83	14.21
MAGNESIUM, DISSOLVED	47	2.06	0.70
SODIUM, DISSOLVED	47	1.93	0.80
POTASSIUM, DISSOLVED	47	0.67	0.26
CHLORIDE, DISSOLVED	47	0.97	1.99
SULFATE, DISSOLVED	47	72.94	34.08
SILICA, DISSOLVED	47	6.15	1.48
BORON, DISSOLVED, UG/L	9	12.22	15.63
DISSOLVED SOLIDS, ROE 180 DEG C	2	182.00	0.00
DISSOLVED SOLIDS, SUM OF CONST	47	136.74	53.06

CONSTITUENT	DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM
TOTAL			
CONSTITUENT	NO. SAMPLES	MINIMUM CONC.	MAXIMUM CONC.

MINOR ELEMENTS:  
 IRON (FE) • UG/L  
 MANGANESE (Mn) • UG/L

10.00 170.00  
 0.00 850.00

LAT 37° 51' 04" LONG 107° 43' 31" STATION NUMBER: 09358900 NAME: MINERAL CREEK ABOVE SILVERTON, CO.

DRAINAGE AREA: 11.001 SQ MI ( 28.4926 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			SAMPLE SIZE	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION					R	Coefficient	CONSTANT
TEMPERATURE, WATER (DEG C)	71	6.17	3.78	0.00	16.00					
STREAMFLOW, MEAN DAILY, (CFS)	62	35.78	34.84	3.40	120.00					
STREAMFLOW (CUBIC FT/SEC)	9	.38.66	.35.21	2.16	84.80					
SPECIFIC CONDUCTANCE (MICROMHOS)	70	213.96	113.80	60.00	529.00					
OXYGEN, DISSOLVED	22	9.24	1.04	6.60	10.60					
pH (STANDARD UNITS)	68	,	,	5.10	8.80					
BICARBONATE ION	47	8.43	7.29	1.00	39.00					
NITRITE + NITRATE, DISSOLVED AS N	47	0.12	0.08	0.00	0.42					
ORTHOPHOSPHATE, DISSOLVED AS P	47	0.00	0.01	0.00	0.03					
HARNESS, TOTAL	47	94.60	56.94	30.00	250.00	47	0.46364	-9.24936	0.9878	A.98078
CALCIUM, DISSOLVED	47	34.28	21.21	11.00	93.00	47	0.17240	-4.33778	0.9860	3.57467
MAGNESIUM, DISSOLVED	47	2.17	1.06	0.60	5.40	47	0.00831	0.31358	0.9532	0.32321
SODIUM, DISSOLVED	47	2.73	1.59	0.80	6.00	47	0.01130	0.19558	0.8647	0.80552
POTASSIUM, DISSOLVED	47	0.60	0.27	0.00	1.20	47	0.00100	0.36660	0.4545	0.23975
CHLORIDE, DISSOLVED	46	0.73	0.54	0.00	2.70	46	0.0043	0.1071	0.3233	0.51912
SULFATE, DISSOLVED	47	93.49	58.54	25.00	250.00	47	0.47664	-13.66767	0.9877	9.25994
SILICA, DISSOLVED	47	7.72	2.72	1.50	47	0.02243	3.14620	0.9113	1.1327	
BORON, DISSOLVED, UG/L	9	14.44	18.78	0.00	60.00					
DISSOLVED SOLIDS, ROE 100 DEG C	2	203.00	15.56	192.00	214.00	2	0.78571	-30.35114	1.0000	0.00000
DISSOLVED SOLIDS, SUM OF CONST	46	147.85	85.22	48.00	370.00	46	0.68921	-7.13480	0.9906	11.75990

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS!						
IRON (FE) • UG/L	38	10.00	580.00			
MANGANESE (Mn) • UG/L	38	10.00	690.00			

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09363500 NAME: ANIMAS RIVER NEAR CEDAR HILL, N. MEX.

LAT 37° 02'17" LONG 107° 52'25" DRAINAGE AREA: 1090 SQ MI ( 2823.1 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT (MG/L OR UNIT SHOWN)

	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT + H	CORRELATION COEFFICIENT	STANDARD ERROR OF ESTIMATE
TEMPERATURE, WATER (DEG C)	97	10.04	6.75	0.00 - 24.50					
STREAMFLOW, MEAN DAILY (CFS)	70	793.03	686.23	246.00 - 3190.00					
STREAMFLOW (CUBIC FT/SEC)	32	1313.44	1222.93	235.00 - 4040.00					
SPECIFIC CONDUCTANCE (MICROMHRS)	76	443.09	125.41	165.00 - 710.00					
OXYGEN, DISSOLVED	54	9.78	1.70	5.80 - 13.80					
P+ (STANDARD UNITS)	73			7.40 - 8.90					
BICARBONATE, ION	28	140.75	32.42	79.00 - 203.00	28	0.24424	28.75892	0.9234	12.67834
NITRITE + NITRATE, DISSOLVED AS N	13	0.14	0.13	0.00 - 0.48					
ORTHOPHOSPHATE, DISSOLVED AS P	11	0.02	0.02	0.00 - 0.05					
HARDNESS, TOTAL	28	193.14	49.93	100.00 - 304.00	28	0.40643	9.78485	0.9818	9.65553
CALCIUM, DISSOLVED	28	60.93	14.59	34.00 - 88.00	28	0.11867	7.39128	0.9813	2.85871
MAGNESIUM, DISSOLVED	28	9.80	3.48	4.80 - 22.00	28	0.02648	-2.15168	0.9172	1.41436
SODIUM, DISSOLVED	28	17.29	8.04	5.00 - 35.00	28	0.06364	-11.42001	0.9550	2.42858
POTASSIUM, DISSOLVED	28	2.56	0.94	0.90 - 4.50	28	0.05681	-0.5134	0.9731	0.46777
CHLORIDE, DISSOLVED	28	13.38	7.13	3.10 - 29.00	28	0.05084	-0.55265	0.9600	3.70746
SULFATE, DISSOLVED	28	94.79	32.26	44.00 - 195.00	28	0.25431	-19.944653	0.9507	10.19842
SILICA, DISSOLVED, UG/L	28	7.97	2.62	4.40 - 18.10					
BORON, DISSOLVED, UG/L	13	58.46	30.23	20.00 - 120.00					
DISSOLVED SOLIDS, ROE 180 DEG C	28	287.82	79.26	154.00 - 479.00	28	0.64281	-2.17780	0.9782	16.77403
DISSOLVED SOLIDS, SUM OF CONST	28	278.07	78.86	148.00 - 462.00	28	0.65103	-15.63545	0.9957	7.45452

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
MINOR ELEMENTS:						
COPPER (CU) • UG/L	1	2.00	2.00			
IRON (FE) • UG/L	14	0.00	290.00			
MANGANESE (MNO) • UG/L	1	20.00	20.00			

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 09366500

NAME: LA PLATA RIVER AT COLORADO-NEW MEXICO STATE LINE

LAT 36 59°59" LONG 108 11°17" DRAINAGE AREA: 331.001 SQ MI (857.293 SQ KM)

## STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

## CONSTITUENT

## CONSTITUENT (MG/L OR UNIT SHOWN)

	SAMPLE SITE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT +	CORRELATION COEFFICIENT R	STANDARD ERROR OF ESTIMATE
--	-------------	------	--------------------	-------	-------------	--------------------------	------------	---------------------------	----------------------------

TEMPERATURE, WATER (DEG C)	63	9.34	7.81	0.00 - 24.00					
STREAMFLOW, MEAN DAILY (CFS)	41	50.18	93.72	0.05 - 385.00					
STREAMFLOW (CUBIC FT/SEC)	24	83.96	120.00	0.05 - 385.00					
SPECIFIC CONDUCTANCE (MICROMhos)	65	1004.75	322.56	354.00 - 1700.00					
OXYGEN, DISSOLVED	23	9.33	1.89	6.00 - 12.30					
P+ (STANDARD UNITS)	36			7.10 - 8.80					
BICARBONATE ION	23	213.83	52.43	140.00 - 294.00	23	0.12966	7A.R7503	0.8808	25.41017
NITRATE + NITRATE, DISSOLVED AS N	9	1.22	0.18	0.07 - 0.56					
DITHIOPHOSPHATE, DISSOLVED AS P	9	0.01	0.01	0.02 - 0.02					
HARDNESS, TOTAL	22	520.18	196.27	238.00 - 910.00	22	0.522628	-2A.08533	0.9774	42.55103
CALCIUM, DISSOLVED	23	110.26	39.20	54.00 - 200.00	23	0.1091	1.07178	0.9531	12.14014
MAGNESIUM, DISSOLVED	23	59.26	23.63	25.00 - 99.00	23	0.06394	-7.28688	0.9636	6.46314
SODIUM, DISSOLVED	23	42.43	19.35	15.00 - 75.00	23	0.05167	-11.34162	0.9509	6.12828
POTASSIUM, DISSOLVED	22	2.45	0.87	1.40 - 4.80					
CHLORIDE, DISSOLVED	23	19.68	10.87	5.80 - 43.00					
SULFATE, DISSOLVED	23	392.00	161.60	145.00 - 730.00					
SILICA, DISSOLVED	19	10.72	2.20	7.70 - 14.00					
BORON, DISSOLVED, UG/L	10	55.00	10.80	40.00 - 70.00					
DISSOLVED SOLIDS, ROE 180 DEG C	14	A06.58	337.84	345.00 - 1370.00	14	0.83009	-66.45082	0.9901	49.34636
DISSOLVED SOLIDS, SUM OF CONST	23	742.04	275.61	317.00 - 1290.00	23	0.76496	-54.14675	0.9885	42.67877

TOTAL DISSOLVED			
CONSTITUENT	NO. SAMPLES	MINIMUM	MAXIMUM
		NO.	MINIMUM CONC.

## MINOR ELEMENTS:

ARSENIC (AS), UG/L	4	1.00	1.00
CADMIUM (Cd), UG/L	3	0.00	2.00
CHROMIUM (Cr), UG/L	4	0.00	10.00
COPPER (Cu), UG/L	4	1.00	10.00
IRON (Fe), UG/L	4	10.00	80.00
LEAD (Pb), UG/L	4	0.00	4.00
MANGANESE (Mn), UG/L	4	0.00	90.00
MERCURY (Hg), UG/L	4	0.00	0.00
SELENIUM (Se), UG/L	4	0.00	7.00
ZINC (Zn), UG/L	3	10.00	20.00

## STATISTICAL SUMMARY OF WATER QUALITY DATA

STATION NUMBER: 0937000 NAME: MANCOS RIVER NEAR CORTEZ, CO.

LAT 37° 06' 28" LONG 108° 27' 48" DRAINAGE AREA: 302.001 SQ MI ( 782.183 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)			REGRESSION SUMMARY		
	SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	24	8.60	7.08	0.00	26.00	
STREAMFLOW (CUBIC FT/SEC)	23	29.47	62.17	0.73	242.00	
SPECIFIC CONDUCTANCE (MICROMHOS)	24	2277.50	841.58	410.00	3500.00	
OXYGEN, DISSOLVED	22	9.66	1.47	6.40	11.80	
P-4 (STANDARD UNITS)	23			6.20	8.70	
BICARBONATE, ION	22	220.36	71.80	92.00	367.00	22
NITRITE + NITRATE, DISSOLVED AS N	23	0.61	0.82	0.01	4.00	
ORTHOPHOSPHATE, DISSOLVED AS P	23	0.01	0.01	0.00	0.03	
HARDNESS, TOTAL	23	1170.43	47.51	180.00	1900.00	23
CALCIUM, DISSOLVED	23	234.52	85.41	44.00	380.00	
MAGNESIUM, DISSOLVED	23	142.87	66.84	17.00	270.00	
SODIUM, DISSOLVED	23	161.87	81.96	17.00	310.00	
POTASSIUM, DISSOLVED	23	5.01	2.56	1.50	15.00	
CHLORIDE, DISSOLVED	22	19.13	7.18	3.20	33.00	
SULFATE, DISSOLVED	22	1304.09	517.07	140.00	2200.00	
SILICA, DISSOLVED	23	7.98	2.09	3.50	11.00	
DISSOLVED SOLIDS, SUM OF CONST	20	2053.10	649.59	622.00	3220.00	20
					0.99610	-134.054
						0.9940
						72.7918

DURATION TABLE OF DAILY SPECIFIC CONDUCTANCE				SAMPLE SIZE = 685		
DAILY SPECIFIC CONDUCTANCE IN MICROMHOS AT 25 DEG C THAT WAS EQUALLED OR EXCEEDED FOR THE INDICATED PERCENTAGE OF TIME	1%	5%	10%	25%	50%	75%
3750	3360	3120	2780	2200	1820	659

CONSTITUENT	TOTAL			DISSOLVED		
	NO. SAMPLES	MINIMUM	MAXIMUM	NO.	MINIMUM CONC.	MAXIMUM CONC.
	22	1.00	350.00	0.00	150.00	

MINOR ELEMENTS:  
 IRON (FE) • UG/L  
 MANGANESE (MN) • UG/L

STATISTICAL SUMMARY OF WATER QUALITY DATA  
 STATION NUMBER: 09372000      NAME: MCELMO CREEK NEAR COLORADO-UTAH STATE LINE  
 LAT 37°19'27"      LONG 109°00'54"      DRAINAGE AREA: 350,001 SQ MI ( 906,503 SQ KM)

STATISTICAL SUMMARY OF SELECTED DISSOLVED CHEMICAL CONSTITUENTS AND  
 REGRESSION RELATIONSHIPS OF CONSTITUENT CONCENTRATIONS TO SPECIFIC CONDUCTANCE

CONSTITUENT	CONSTITUENT (MG/L OR UNIT SHOWN)	REGRESSION SUMMARY							
		SAMPLE SIZE	MEAN	STANDARD DEVIATION	RANGE	SAMPLE SIZE	REGRESSION COEFFICIENT R	CONSTANT B	CORRELATION COEFFICIENT R
TEMPERATURE, WATER (DEG C)	41	12.44	8.72	0.00	27.00				
STREAMFLOW, MEAN DAILY, (CFS)	17	64.71	33.58	14.60	134.00				
STREAMFLOW (CUBIC FT/SEC)	11	32.09	18.06	5.89	139.00				
SPECIFIC CONDUCTANCE (MICROMHOS)	41	2948.78	915.38	580.00	4500.00				
OXYGEN, DISSOLVED	20	9.18	1.77	6.70	13.00				
pH (STANDARD UNITS)	27								
BICARBONATE ION	20	313.70	45.89	250.00	420.00	19	0.05171	157.04017	0.6979
NITRITE + NITRATE, DISSOLVED AS N	5	2.70	1.62	1.50	5.40				
ORTHOPHOSPHATE, DISSOLVED AS P	5	0.05	0.02	0.02	0.08				
HARDNESS, TOTAL	19	1592.11	373.13	930.00	2000.00	18	0.56212	-131.588	0.9497
CALCIUM, DISSOLVED	20	303.25	59.55	190.00	390.00	19	0.0803	36.28407	0.9326
MAGNESIUM, DISSOLVED	20	200.15	55.39	110.00	277.00	19	0.08231	-49.31064	0.9351
SODIUM, DISSOLVED	20	223.20	71.45	100.00	360.00	19	0.09497	-68.21194	0.9060
POTASSIUM, DISSOLVED	20	6.40	1.37	4.30	8.80				
CHLORIDE, DISSOLVED	20	49.85	16.18	20.00	76.00	19	0.02148	-15.43764	0.8409
SULFAFE, DISSOLVED	20	1653.50	451.55	820.00	2200.00	19	0.68200	-416.252	0.9588
SILICA, DISSOLVED, UG/L	16	9.40	2.45	3.20	13.00				
BORON, DISSOLVED, UG/L	11	222.73	50.81	140.00	310.00				
DISSOLVED SOLIDS, ROE 180 DEG C	14	2836.57	608.60	1940.00	3600.00	14	1.09616	-535.266	0.9598
DISSOLVED SOLIDS, SUM OF CONST	20	2603.50	659.32	1400.00	3450.00	19	0.99410	-417.814	0.9631

CONSTITUENT	TOTAL DISSOLVED			MAXIMUM CONC.
	NO. SAMPLES	MINIMUM	MAXIMUM	
MINOR ELEMENTS:				
ARSENIC (AS), UG/L	4	1.00	2.00	
CAPTUM (CD), UG/L	4	0.00	2.00	
CHROMIUM (CR), UG/L	4	0.00	5.00	
COPPER (CU), UG/L	4	2.00	6.00	
IRON (FE), UG/L	11	10.00	70.00	
LEAD (PB), UG/L	4	0.00	2.00	
MANGANESE (MN), UG/L	4	50.00	240.00	
MERCURY (HG), UG/L	4	0.00	0.00	
SELENIUM (SE), UG/L	4	0.00	15.00	
ZINC (ZN), UG/L	4	1.00	20.00	